DOCUMENT RESUME

ED 294 705 RC 016 585

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TITLE Using the Outdoors To Teach Language Arts.
INSTITUTION ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mex.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE 88
CONTRACT 400-86-0024
NOTE 96p.; For related documents, see ED 264 059, ED 264 063, and ED 269 192.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052) -- Information Analyses - ERIC Information Analysis Products (071)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS American Indians; Animals; Astronomy; Childrens Art; *Childrens Literature; Elementary Secondary Education; Environmental Education; Field Trips; Illustrations; Intermediate Grades; *Language Arts; Learning Activities; Lesson Plans; Outdoor Activities; *Outdoor Education; Picture Books; Plant Identification; Reading Material Selection; Science Activities; Social Studies; *Student Publications; Teaching Methods

ABSTRACT

A framework for using the outdoors as a vehicle for providing meaningful language arts experiences is presented in this guide geared toward intermediate students but adaptable for other ages. The introduction outlines goals of language arts instruction and notes that activities conducted outdoors contribute to these goals because they are motivating, concrete, consistent with whole language methodology, and relevant to children's lives. Chapter 2 contains practical tips for managing children in the outdoors, planning outdoor activities, and evaluating children's outdoor experiences. Chapter 3 explains a cyclical instructional model consisting of motivation, exploration, expression, labeling application, and a second opportunity for expression. Chapter 4 suggests ways of using children's literature in outdoor education and lists books and activities that could be used to study astronomy, American Indians, the desert, and environmental communications. Chapter 5 describes language arts activities that can be used to facilitate outdoor education experiences. Activities are listed under the topics of air, humans in the environment, plants, animals, and rocks and minerals. Appendices contain an evaluation by students of a trip to the Grand Canyon and four books written and illustrated by students ("Deserts Are Alive," "Plants and their Adaptations," "Wonders of the Desert," and "How You Can Survive"). (JHZ)

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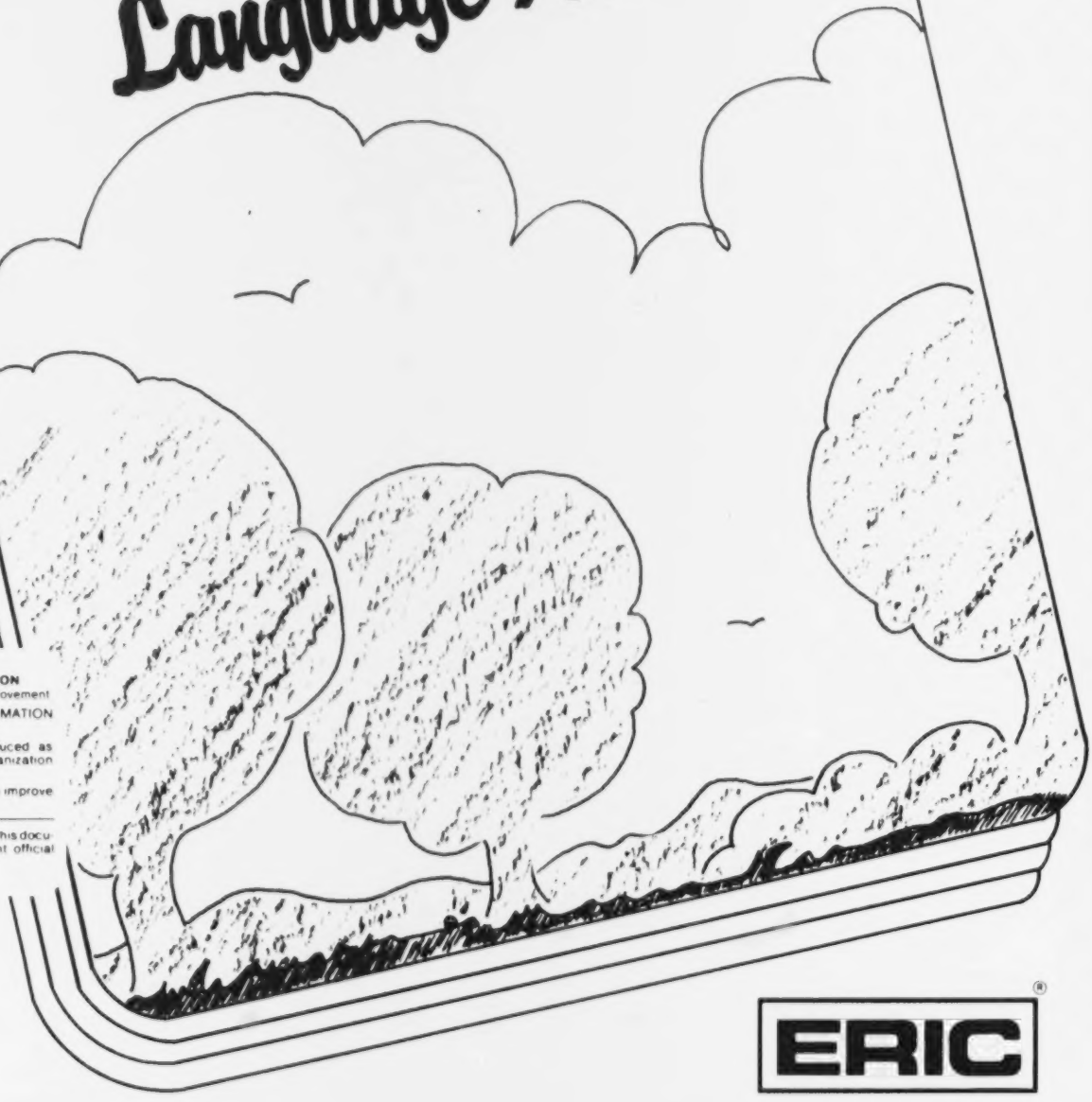

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Using the Outdoors to Teach Language Arts

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1988

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(ERIC/CRESS)
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Cover design by Debbie Guerrero.

This publication is based on work sponsored wholly or in part by the Office of Educational Research and Improvement, U.S. Department of Education, under contract number 400-86-0024. Its contents do not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. Government.

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I. Introduction

A child's word is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood. If I had influence with the good fairy who is supposed to preside over the christening of all children, I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life, or an unfailing antidote against the boredom and disenchantments of later years, the sterile preoccupation with things that are artificial, the alienation from the sources of our strengths.

If a child is to keep alive his unborn sense of wonder . . . he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in . . .

Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts.

Rachel Carson (1965)

While children are the center of the learning process and teachers are at the center of what is being taught, it is language that is central to the interaction of teaching and learning. It is language that produces knowing (Smith, Goodman, and Meredith, 1976). Listening, speaking, reading, and writing are the major components of the language

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arts curriculum, but they should not be relegated to a specific "language arts" time in a school day. Instead, they should be in evidence all day, in all subject areas.

Children learn through all of the language experiences they have, whether they be discussions in reading, reports given in social studies, outdoor field trips, songs, or games. The use of appropriate language arts experiences in the study and exploration of the outdoors and outdoor topics can enhance, enrich and preserve a child's innate sense of wonder as well as lead to better teaching and learning. It is the intent of this monograph to show just how this can be accomplished.

A. Goals of the Language Arts

Language arts instruction extends beyond instruction of specific components of the language arts, and includes activities and experiences in reading, writing, listening, and speaking that permeate the whole elementary curriculum. What are the goals, then, of language arts instruction? According to Distefano, Dole, and Marzano (1984), they are "(1) to create in young minds a desire to learn and a love of learning through language, (2) to enable each child to communicate effectively, (3) to develop each child's fullest potential in listening, speaking, reading and writing abilities."

B. Outdoor Education's Contribution to the Goals of Language Arts

Teachers can find language arts opportunities in all areas of the curriculum, whether they be indoors or outdoors. Activities conducted outdoors, however, have the advantage of contributing to the goals of language arts education in at least four overlapping ways:

1. Outdoor activities are motivational. Just being able to go outdoors, away from the four walls, desks, books and bells of the school, is an instant motivator. The outdoors and nature have long served as the inspiration and subject matter for many great artists, musicians, and authors. Outdoor education activities can provide the same motivation for language arts expression among children.

2. Concrete experiences are provided in the outdoors. Learning theorists indicate the importance of learning-by-doing with concrete experiences. By definition, outdoor education is a method of teaching and learning which offers opportunities for participating in direct laboratory experiences outside the classroom (Staley, 1979). Experiences of observing, manipulating, analyzing, measuring, and recording in the outdoors can easily lead to the use of art, drama, fantasy,

express their outdoor encounters.

3. Outdoor education is consistent with whole language methodology. The outdoors is whole and unsegmented by content discipline. It appeals simultaneously to the cognitive, psychomotor and affective dimensions of human beings. Whole language approaches suggest that language, like the outdoors, should be unsegmented. As Goodman (1986) suggests, "Whole language programs get it all together, the language, the culture, the community, the learner, and the teacher." The outdoors provides meaningful and purposeful opportunity to use language in its natural form.

4. Outdoor experiences are relevant to students' lives. If outdoor education experiences are concrete and use language in a holistic and meaningful manner, then that language has a good chance of becoming relevant to children's lives and learning. Good outdoor education experiences also deal with local issues, topics, problems and resources. This, too, helps spark a sense of wonder by helping to make learning and use of language relevant to children's lives.

II. Managing Children in the Outdoors

Outdoor education activities require the same application of good principles of instruction as do indoor activities. There are, however, some planning, management, and teaching techniques that are different. It is important to realize at the outset that the policies and procedures of the school system protect, guide and support all educational activities whether they occur in or away from the school building. Health and safety policies, legal provisions and liability follow the children and teachers to any environments which are conducive to the achievement of educational objectives.

It is also important to realize that you do not have to have special experiences or knowledge to take children into the outdoors for learning. There are certainly understandable reasons why some teachers may feel uncomfortable taking children into the outdoors. Unlike our ancestors, many of us have grown up with little contact, knowledge, and appreciation of the outdoor environment. Our lifestyles have almost separated us from nature.

There are also those teachers who feel comfortable in the outdoors, due to a rural upbringing or fondness for outdoor activities, but may not feel knowledgeable enough to lead children in the outdoors. Outdoor education is not just science in the outdoors but rather an interdisciplinary approach involving virtually all disciplines, including the language arts. Outdoor education is also meant to provide opportunities for developing intellectual and social skills, and a feeling of oneness with nature. Teachers do

not have to know the names of every plant, animal, rock or be able to explain every natural phenomenon to help children learn and become inspired in the outdoors. Remember, if a child wants or needs more information than you can recall, there are many resource books or other people that can provide the information.

In addition to these general statements, the following identifies some effective strategies for planning outdoor education experiences, managing children outdoors, and evaluating children's outdoor experiences.

A. Planning Outdoor Education Experiences

It is true that outdoor education experiences take extra preparation and time. Thus, you must be committed to the fact that the gains made by the children will be great and therefore will be worth the extra time it may take. It is also important to know that the more of these experiences you complete, the easier planning becomes. Here are some helpful suggestions which will hopefully make your outdoor experiences run smoothly.

1. Have a good reason for going outdoors. Taking children outdoors just for the sake of getting out of the classroom for a class period has little justification for the time, energy and money required to do so. When children are taken outdoors, it should be to achieve language arts goals or objectives that cannot be achieved equally well indoors. Examples of activities that are well suited to using the outdoors might be to investigate resources like garbage cans, drainage ditches, or construction sites. Here the children would undoubtedly benefit more from direct experience or contact with these resources. Studying environmental problems such as air pollution from automobiles could also legitimately take you out of the classroom. Carefully observing a tree on the school site could lead to a quality of poetry writing or water coloring that could not be so easily achieved by looking at a tree in a book. Participating in recreational games or sports which allow children to develop social and cooperation skills is yet another example of an experience that cannot be provided easily indoors.

2. Determine the outdoor resource that would best fit your need. Due to ever present financial limitations, those resources that are closest to the school site should be considered first. The resources range from those on the school site, to those requiring trips of a portion of a day in the school neighborhood, to those needing more than one day away from the school.

3. Determine how to best utilize the resource. Keeping in mind the language arts components and the theme or purpose, decide if you need a visiting trip—which might be something like a zoo, bakery, or national monument visit; a collection trip—where children can gather objects for more detailed study back in the classroom; a field investigation—where children investigate a problem, collect data or construct something; or an overnight trip which could incorporate all of the above types of experiences as well as provide unique opportunities to help develop the social skills of children.

4. Determine goals and activities for students to accomplish. Specific activities that children will be involved in should be planned, as well as the gathering of all the supplies for those activities. This is the most time-consuming task for the teacher. The suggestions which follow in the later portions of this monograph provide samples of the kinds of language arts experiences that can be achieved in the outdoors.

5. Make pre-trip arrangements. There are five or six major steps to be followed in planning an outdoor experience. The type and extent of the trip will determine which steps should be followed.

   a. Acquire permission from your school principal to make the trip.
   b. Visit the site to assess the time needed for travel and to complete activities, to find out whether lavatory and drinking facilities exist, and to find the nearest place for help in case of an emergency.
   c. Seek permission to use the facilities, then schedule the trip and the resource people connected with the site.
   d. Determine how and where transportation will occur.
   e. Determine how the trip will be financed: whether children pay all, fund raising occurs, scholarships are granted, and/or the school pays.
   f. Recruit volunteer help, including older students that you know will be trustworthy and helpful, parents, the school nurse, and/or other teachers from your building.

6. Prepare the children for the experience. Prepare in advance to make sure each child:

   a. Knows what kind of behavior is expected.
   b. Has learned the necessary skills.
   c. Has available the equipment required.
   d. Understands guides, journals, and worksheets.

7. Communicate your plans with others. This includes:

   a. Preparing an explanation letter for parents which includes permission slips, a consent form for parents whose children take medication on a regular basis, and insurance forms.
   b. Planning a menu and a food purchasing list.
   c. If an overnight trip, preparing a list of what gear children should and should not bring.
   d. Making cabin and/or bunk assignments.
   e. Making duties and responsibility lists for teachers, other personnel involved, and children.
   f. Planning a daily schedule. Besides providing a variety of activities—small group, individual, and large group, work time, instructional time, and free time—consideration should also be given to food preparation, meal cleanup, free time after meals, cabin check (cleanup inspection), snack time, bed check, the time for children's lights to be out, and staff planning.
   g. Informing special teachers and cafeteria workers at school of the dates you will be gone.
   h. Discussing with children consequences for misbehavior.

B. Managing the Class Outdoors

Management of children in the outdoors is different because there are no walls and rigid time schedules to follow. Managing 30 or more children for the first time in an outdoor setting can be a daunting experience, even with the help of colleagues. To organize so rigidly that the excitement of being outdoors is gone is not desirable. Providing absolute freedom is no better. The following suggestions are offered to provide a happy medium between too rigid and too loose management of children in the outdoors.

It is not a good idea to take a class of children for a day long experience or an overnight trip if you have never taken a group outdoors before. There is a logical progression which has been used by many teachers:

1. Take the class outside on the school site for a discussion or to read a book. Children begin to get the idea that the outdoors can be used for more than just recess.

2. Provide a somewhat structured activity to do with the class outdoors. Talk over the behavior that is expected and the time required to complete the task.

3. Continue working on the school site using activities that take longer and longer periods of time. Each time you go out, focus briefly on expected behaviors and shift more and more responsibility for completing the task to the individual child or to the group.

4. Assuming ability of the children and you to function in the above, you should be ready to venture away from the school site.

   It may take you and the children some time to become acclimated to the different and informal learning environment of the outdoors. You shouldn't expect that the first couple of outdoor experiences will be completely successful.

   Another management concern has to do with accidents. There are always possibilities of accidents in the outdoors; thus extra planning is needed to prepare children for potential accidents. If, for example, children are away from the group and an accident occurs, the children should have been instructed to go to the nearest adult. If there is not one in view, two children should go, one in each direction looking for an adult. Another child can stay with the injured person. Some safety tips that can be discussed with the children prior to the trip are:

   a. Always walk, never run.
   b. Never wander away from the group.
   c. Never put your hands or feet any place that you cannot see into.
   d. Never throw rocks.

   Some minor accidents are bound to happen. You should always have a basic first aid kit and someone with knowledge of how to use it. You should know if any children have special medical problems (heart weakness, diabetes, etc.) that would affect their taking part in some of the activities. It is also wise to have two vehicles available to transport an injured child to the nearest medical facility without stranding others at the site.

   Don't forget the real world is full of surprises. You may find an unexpected teaching opportunity that may be even better than the one you had planned. Don't be so structured in your planning that you and your children lose those special moments.

C. Evaluating Children's Outdoor Experiences

Evaluation of an outdoor experience can take many shapes and forms. It does not always need to be a paper/pencil test. If children conducted activities outdoors in order to learn a specific concept, the evaluation can be varied to help instill and insure un-

derstanding of the concept. Children who enjoy outdoor work will want to share or express their understandings with classmates. Materials should be freely available for many of the following types of language arts expressions:

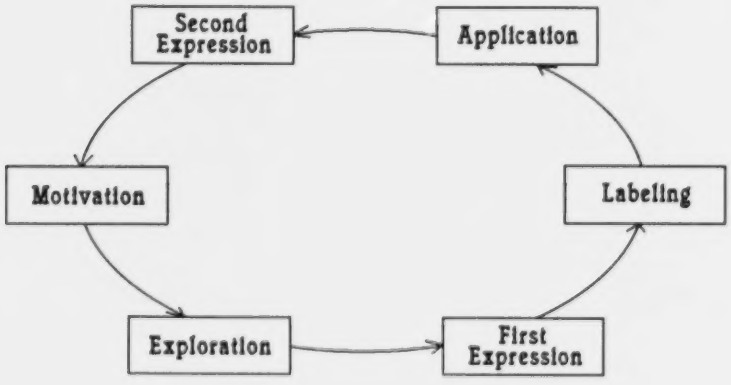
1. Children who have a lot to say may enjoy using a tape recorder to record poems or descriptions of a particular environment that they've studied.
2. Some may wish to use water colors, crayons or colored chalk to express their learnings.
3. A cooperative effort in making a mural with each child drawing a part of the activity is also effective. The groups may then share their murals with each other.
4. Some may choose to make models in clay.
5. Illustrated books containing factual information may be written and bound (see Appendices A, B, C, and D).
6. Daily logs or journals with entries concerning each activity are also beneficial (see Appendix E).
7. Other children do well in constructing maps, graphs, charts, or displays.

During these kinds of expressions or evaluations one objective should be for children to present in a way that is both meaningful to them as well as their classmates. Thus, students have to be concerned both with meaning and their style of presentation. Evaluation is not an easy task, but the attempt to utilize various kinds of language arts expressions in the process is one of the most effective ways for children to consolidate and deepen their own understanding of the work they have completed as well as develop and refine language skills.

When group work such as the above is completed, class time will be needed for examining results of the studies as a whole, listening to group reports and discussion. Hopefully the children's work will bring out significant features or relationships which attention can be drawn to at this time. Finally, parents and other classes can be invited in to see what has been learned and how the many modes of language arts expression have been utilized.

III. Utilizing Language Arts in the Outdoors

An instructional model which has the potential to highlight and enhance language arts skills in relation to indoor or outdoor learning experiences is described below. The model has six phases which are considered cyclical because each stage can always lead to the next. The six phases are Motivation, Exploration, Expression, Labeling, Application and once again Expression and can be diagrammatically presented as follows:



A. Motivation Phase

Ideally, motivation comes from within and, as mentioned previously, the outdoors brings about internal motivation quite easily. The teacher can help encourage self-motivation and discovery, however. Several language arts activities which expand listening, writing, speaking and reading skills and, at the same time, provide the motivation for an outdoor activity or study of an outdoor topic are as follows:

1. Listening to well selected children's literature and works by such environmentalists as H.D. Thoreau and Teddy Roosevelt.
2. Browsing through and reading books, magazines, plays, etc., on the topic about to be studied.
3. Dramatizing stories written by others on outdoor topics.
4. Listening to music or singing songs appropriate to the topic.
5. Looking at art appropriate to the topic.
6. Conducting a discussion about the outdoor topic, issue or problem about to be investigated.
7. Various other talking activities related to the topic, i.e., news broadcasts, sharing of objects, storytelling, oral reports or giving directions.

B. Exploration Phase

Once motivation has been aroused, students are ready to encounter new events, activities or situations in the outdoors. Students explore, usually with minimal guidance from the teacher, and learn through their own actions, interactions, and reactions. These new exploration experiences may raise questions that cannot be immediately understood in terms of past ways of thinking. Exploration is important because it provides the experiences upon which later conceptual understanding *and then language can be developed.*

C. First Expression Phase

After exploration experiences children need an opportunity to express their learnings/feelings in a variety of ways. This should occur before the teacher or textbook begin to provide labels for what has occurred. A few very legitimate modes of language arts expression at this point are discussions, written reports, poems, songs, graphs, charts, or creative drama.

D. Labeling Phase

Here the main idea or concept experienced previously by the students is labeled and defined. Such labeling helps students organize their thinking about the new idea and how it may relate to prior knowledge. The label for the idea or concept is usually provided by the teacher; however, a textbook, reading, film or other language medium can also be used to label the idea or concept.

E. Application Phase

Full understanding of an idea or concept requires more than one example. This is why the application phase is so important. In this phase further activities—utilizing the outdoors, where appropriate—are carried out involving applications of the same idea or concept but within new contexts. The important relationships between new and old understandings stay the same but the context varies. Application experiences also serve to reinforce, refine and enlarge the content of the new idea or concept.

F. Second Expression Phase

The final phase is another expression. Here again the use of the language arts to express learnings and/or feelings from the prior application activities are important.

In the above model the language arts are being used as vehicles for the stimulation and enhancement of learning. To help clarify the above instructional model, the following outdoor education example is provided:

Topic:	Rocks and minerals
Purpose:	For students to gain knowledge of various kinds of rocks and minerals and develop skills of observation, description and classification.
Lesson Plan:	This could range from a week to two week-long lessons, depending on grade level.
Motivation:	Read *Everybody Needs a Rock* by Byrd Baylor (1974)—a book describing 10 rules for finding the perfect rock.
Exploration:	Ask students to go outside to find their own special rock following Byrd Baylor's rules.

First Expression:	Have students get to know their rock and then write a description of their rock. (Note: a key to both good science and writing is observation.) Students might next put all their rocks in a circle, swap descriptions with another student, find that student's rock and then share the parts of the written descriptions that were helpful and not helpful in locating the other person's rock. Note that in both the written and verbal language arts experiences, the language was purposeful and meaningful. Student's skills in describing his rock were also greatly enhanced by the peer feedback.
Labeling:	Teacher identifies, with student's help, some of the characteristics used by geologists to classify rocks and minerals, i.e., color, texture, and luster. Textbooks, other supplemental books, films, lecture or guest speakers could be used to transmit these labels. What's important to realize is that children have already experienced these characteristics in their own rocks. They are now given labels for these characteristics.
Application:	Children, working in pairs, are given reference books and asked to begin a classification system for all the types of rocks found on the school site.
Second Expression:	Each child is asked to write another description of his rock utilizing the suggestions provided previously by a peer and the new information acquired from the reference books. This information and the rock are added to the class rock collection.

The above represents the learning activities occurring within one cycle of the instructional model. Most likely a unit on rocks and minerals would utilize this cycle many times as other characteristics of rocks and minerals are identified (scratch test, density, etc.) and as major categories (sedimentary, igneous and metamorphic) are introduced.

IV. Children's Literature and Outdoor Education

Reference has already been made to the use of children's literature. Children's literature is a rich but woefully overlooked language arts resource in the elementary school classroom. This is due, in part, to our traditional dependence on textbooks and possibly to the lack of familiarity with the availability of literature related to outdoor education topics. Children's literature has the advantage of an appealing format and lively writing style without the restraints of formal textbook prose. It is the story, picture or poetry book which utilizes accurate information about the environment that has the potential to grasp children's emotions, interests, and imaginations.

Children's literature can be used during the motivation phase of the learning cycle, as was true with *Everybody Needs a Rock* (Baylor, 1974) in the previous example, but it can be used at other phases as well. *When You Find a Rock* (Klaits, 1976), for example, helps children in the Labeling or Application phase discover the type of rock they have. Other books such as *Sylvester and the Magic Pebble* (Steig, 1969), *I Am a Rock* (Nieto and Azaola, 1974) and *If You Are a Hunter of Fossils* (Baylor, 1980) could also be used within many phases of the learning cycle.

Most forms of literature can lead to activities which permit children to experience first hand those topics or concepts introduced vicariously in books. Some other topics which can prove as great resources are as follows:

A. Astronomy

1. Read from *The People* (Littmann, 1976) American Indians' versions about star constellations.
2. Find a group of stars in the night sky and make up your own legend.
3. Read from *The Way to Start the Day* (Baylor, 1978), which shows the way the sun is worshiped throughout the world.

B. American Indians

1. Read from *When Clay Sings* (Baylor, 1972), which identifies the symbolism and meaning in the designs and craft of pottery making.
2. Identify various types of pictographs.
3. Go outside on the school sites or in the neighborhood and experience the out-of-doors.
4. Create a protective shield for the environment, using pictographs from Indian pottery to show some of your own environmental beliefs.
5. Read *The Desert is Theirs* (Baylor, 1975), which shows the oneness with nature represented by Papago Indians living in the southwestern deserts.

C. The Desert

1. Read from *Gila Monsters Meet You at the Airport* (Sharmat, 1980).
2. Discuss how mind sets, prejudices or misperceptions can occur and affect one's beliefs and actions—with reference to misperceptions people might have about the desert.
3. Find examples within the school community where people's misperceptions about the environment are displayed.
4. Read from *Desert Voices* (Baylor, 1981), which presents fairly accurate vignettes about various forms of desert life.

D. Environmental Communications

1. Read from *The Other Way to Listen* (Baylor, 1978) or *Stopping by Woods on a Snowy Evening* (Frost, 1978).

2. Conduct an awareness hike into the appropriate type of environment.

3. Read *Sometimes I Dance Mountains* (Baylor, 1973) with students dramatizing the words.

4. Have students create their own poems to match the environment they experience.

V. Additional Outdoor Language Arts Suggestions

The activities described here are, for the most part, appropriate for the intermediate level. They may be adapted for lower or higher grades, however.

You also may need to modify the activities to fit your own particular goals, objectives, and resources. They are not meant to be completed lessons but, rather, springboards for your own way of thinking and needs.

Because of the emphasis of using the language arts as a tool for facilitating outdoor education experiences, the activities are listed by outdoor topic. You will, however, discover that many of the language arts activities could easily fit more than one topic.

Many of these activities will fit into the Expression Phases of the learning cycle described earlier. They are meant to be used in context as part of the whole learning cycle, not as isolated events.

The five major topics represented below are Air, Humans in the Environment, Plants, Animals, and Rocks and Minerals.

A. Air

1. Air Verse. After an experience outdoors ask each student to brainstorm a list of about 10 adjectives which would describe the air. Repeat using verbs. These

lists of adjectives and verbs may then be arranged into poem form, free verse, haiku or cinquain. Haiku, originated by the Japanese, consists of three lines of five, seven, and five syllables each. The emphasis is syllabic, not rhyming.

Example:

The crispy cool air
Feels refreshing and calming
On a summer's night

Cinquain is derived from the French and Spanish words for five. This form of poetry is also based on syllables but there are five lines. Each line has a mandatory purpose and number of syllables. These are (1) the title in two syllables, (2) description of the title in four syllables, (3) description of action in six syllables, (4) description of a feeling in eight syllables, and (5) another word for the title in two syllables.

Example:

Balloons
Graceful, growing
Climbing among the clouds
Joyfully stalking the sunset
Alive

2. Shades of Meaning. Have the students write down five pairs of opposites (i.e., good, bad). They then go to the school site to find examples of these in the outdoors. When they come back inside they are directed to write a Diamante (a poem shaped in the form of a diamond) that demonstrates one pair of opposites. The purpose is to show that opposites are related through shades of meaning from one extreme to the opposite extreme. The words chosen should match the following pattern of parts of speech:

Noun
Adjective Adjective
Participle Participle Participle
Noun Noun Noun Noun
Participle Participle Participle
Adjective Adjective
Noun

Suggested opposites that related to air pollution might include:

Polluted - Fresh
Freedom - Regulation
Use - Misuse
Clear - Smoggy
Moving - Still
Wilderness - Megalopolis

3. Environmental Advertisements. Ask students to find and bring to class two newspaper or magazine advertisements dealing with some issue related to air, such as auto emissions testing or a no smoking law. One advertisement should be prepared by those conducting the testing, and one by a group opposed to the testing. In class, students should evaluate each advertisement on its emotional appeal, its factual basis, the value system it conveys, the credibility of the arguments stated, and the use of propaganda techniques to help communicate the desired message or objective of the advertisement.

   After students have written their evaluations, discuss:

   a. To which advertisements do you give the most credence? Why?
   b. Of two opposing advertisements, do you agree entirely with either? If not, why?
   c. How are the ads similar and how do they differ?
   d. What seems to be the purpose behind each group's ad? For example, is it to provide information, to justify a practice, to counter charges?

4. Testing for Air Pollution. Have students rub a thin coat of vaseline over the centers of index cards. Tape each card onto a flat surface in a different location. Write the name of the location on the top of the card and leave all the cards in position for a day. Then collect and compare what has collected on the cards.

   Use a magnifying glass for a close-up look at the pollution or dust particles.

   Have students write letters to the government agency responsible for air quality control expressing their findings and/or concerns.

B. Humans in the Environment

Major environmental problems cannot be solved by individuals alone, but it is vital that individuals be aware of the issues and have an understanding of them. The basis

of that understanding must start in the elementary school. The following examples are illustrative:

1. Endangered Species. This issue is one that appeals to students of all ages. Most have an innate compassion for animals even if the species lives in a distant area and has never been seen. With many environmental issues students will want to know "why is this occurring?" and the door has thus been opened for the start of a new unit.

   Students' writing can be incorporated easily in such studies. Write-ups of shows seen on television can be created and posted in the classroom. Students might write and present a play about the issue or after gathering information from a variety of sources, i.e., the Department of Game and Fish, National Wildlife Federation, etc., . . . they could write letters to appropriate state or federal agencies or legislators telling of their feelings and/or concerns.

2. Stranded on a Tropical Island. Put the class into the situation of being stranded on a deserted tropical island. Their goal is survival. Have them write a short essay on what they would do to survive and what natural materials they would need as well as how they would use them.

   After they turn in the essays, ask how many thought into the future or were concerned with only their immediate needs.

   To make the activity more challenging, limit the amount of selected natural resources to fresh water, wood, and edible plants.

3. Examining Ecosystems through Alternative Eyes. After studying a particular ecosystem, i.e., the desert, forest, tundra, etc., have class members choose one of the members of the ecosystem (a plant or animal). An analysis should first be made of how this member is interrelated with other living and non-living aspects of the ecosystem (including the activities of man).

   Then have students write a story through the eyes of that member, indicating what's happening to the ecosystem and making predictions of what the ecosystem will be like in the future. The stories should then be read to the class.

   As a follow-up activity the class can choose its favorite story of those read and make and put on a play based on that story.

4. Environmental Shield. This shield should represent the students' feelings about their environment. Students can design their own shield or copy from a teacher-made pattern. The shield is divided into four equal parts with a variety of drawings possible in each section. Take the students on a walk around the school site or, if possible, hike to the top of a hill or past a stream or even

through a sandy wash. Have the students listen to the environment and try to communicate with it.

When they return to the classroom or back to the camp site, give some possibilities for creating their shield, such as:

a. Express in a drawing the first thing you remember seeing on your walk/hike.
b. Express in a drawing your favorite plant.
c. Express in a drawing what your environment means to you.
d. Express, in three words, your feelings about what the environment was communicating to you.

C. Plants

1. Living Labels. Take your class outside and station each student near a tree or other large natural object. Each student is to serve as the object's "living label" to provide oral information about it when asked. Other class members (or guests from another class) will circulate to "read" each label.

> *Variation:*
>
> Allow students to select the natural objects they wish to be. Ask them to print on a piece of paper a list of 20 words which describe this object. They should attach the paper to their clothing. Other class members will try to guess their identities by reading their descriptive words.

2. Tree and Plant Riddles. When it's too nasty to venture outside, try some of these riddles with your students:

   a. Tree Riddles

      1) What tree always sighs and languishes? (pine)
      2) What tree is made of stone? (lime)
      3) What tree grows nearest the sea? (beech)
      4) What tree always has a partner? (pear)
      5) What tree is pulled from the water with a hook? (bass)
      6) What tree is often found in bottles? (cork)
      7) What is the straightest tree that grows? (plum)
      8) What tree is older than most other trees? (elder)
      9) What tree is always found after a fire? (ash)
      10) What tree do ladies wear around their necks? (fir)

b. Flower Riddles

1) What flower is most used by cooks? (buttercups)
2) What flower tells how a man may get rich quick? (marigold)
3) What flower serves as a parting remark to a friend? (forget-me-not)
4) What flower do people get up early to enjoy? (morning glory)
5) What flower is both pleasant and distasteful to the palate? (bittersweet)
6) What flower suggests neat lines? (primrose)
7) What flower suggests late afternoon? (four-o'clock)
8) What flower do young men like to touch? (lady finger)
9) What flower often hangs on the laundry line? (Dutchman's breeches)
10) What flower describes a beautiful specimen of an animal? (dandelion)

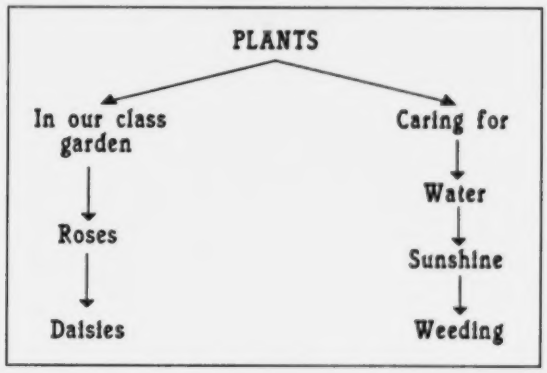
(Riddles from *Nature-Oriented Activities* by
B. van der Smissen and O. Goering)

After trying these out on students, then organize them to work in small groups writing their own riddles about plants in and around their environment.

3. A Playground Tree. Have the students imagine that they are a tree on the school playground. Then through writing or role-playing ask them to describe or act out things that happened to them during a certain length of time. Playground trees have a pretty hard life!

4. Alphabet Scavenger Hunt. Using the alphabet as a guide, have students find plants in the surrounding area and list them by the first letter of the name. See how many letters of the alphabet can be used.

5. Semantic Mapping with Plants. This is a word game which generates a list of topics related to an environmental experience. With plants being the focus of this brainstorming, students quickly jot down the next word that they think of. Then another word which relates to that word should be identified and so on until students have written down a chain of six or seven words.



understanding of how to organize their own writing.

6. One Leaf of a Kind. Give each student a similar kind of non-poisonous leaf. Tell the students to examine their leaves carefully, using all their senses. For example, have them rub it on their cheeks, noses, arms, and the palms, of their hands. Let it lay on their foreheads for a moment. Have them smell it and look closely at it from a distance. Students then write down their descriptions.

   The teacher next collects all leaves and puts them on a table. Students trade descriptions with a partner and then see if they can pick out their partner's leaf from reading the description.

7. Mood Trees. Try this when you're working with words that describe moods. Each student decides on a certain mood and attempts to find a plant or tree that matches that mood (e.g., angry, sad, determined, tired, flabbergasted, confused, proud). Students then may write a poem or story expressing their mood.

8. Find My Tree. Discuss tree identification with students. Decide what to look for. Mention bark, leaves, branching, seeds, type of environment, etc. Take students outside and ask that they each pick a tree. After a thorough examination of the tree, one which uses all of their senses, they write a description. Each exchanges with a partner. The partner attempts to guess what kind of tree it is.

D. Animals

1. Amphibians and Reptiles in Legends, Fables, Songs and Poems. Have students read amphibian and reptile lore, legends, and fables. Poetry is available in most school libraries on this topic. For example, frogs are major characters in several of Aesop's fables. An older belief accorded salamanders the awesome ability to withstand the heat of fire. According to an ancient legend, a turtle held up the earth. Snakes have had a bad reputation ever since the days of Adam and Eve, and rattlesnakes were depicted on several flags of the colonial states as symbols of belligerence with the saying "Don't tread on me."

2. Insect Reports. Take students outside and observe insects as closely as possible. Record how they move, how fast they go, what and how they eat, how they clean themselves, and when they are active. Measure them and record sizes; compare different insects of the same species. Use reference material to include things such as life cycles, geographic distribution, and influences on the environment. After this kind of report students may be asked to write insect poems.

environment. After this kind of report students may be asked to write insect poems.

Example:

Hungry Mosquitos
Like nimble-footed dancers
On hair thin legs
And grows of finest lace
Twirling 'round a stage,
The mosquitos on my screen.
(Sisson, 1982, p. 64)

E. Rocks and Minerals

1. Fossil Prints. Take students outside to look for fossils or bring fossil samples in if none are available in your community. In the classroom mix a batch of plaster of Paris and pour a small amount into a greased plastic container or paper cup. Students press fossils into the plaster of Paris and pull them out quickly before the plaster sets. Let the "imprint" fossil dry. Then pour plaster of Paris into the greased imprint fossil to form a "cast" fossil.

   Assign creative writing topics.

   Example:

   A student pretends he is a geologist living in the year A.D. 3,000. He discovers an odd looking fossil. What is it?

2. Everybody Needs a Friend. After reading *Everybody Needs a Rock* (Baylor, 1974) have the students compose their own book called *Everybody Needs a Friend.* The students would follow Byrd Baylor's pattern. They would then decide on the 10 best rules to be included for finding a friend.

Example:

Everybody needs a friend. I'm sorry for kids who don't have a friend. I'm sorry for kids who only have Barbie dolls, minibikes, treehouses, footballs, and trampolines and things like that—if they don't have a friend.

That's why I'm giving them my own ten rules for finding a friend . . . Not just any friend. I mean a special friend that you find yourself and keep as long as you can . . . maybe forever.

If somebody says, "What's so special about that friend? You can tell him if you want to.

I do.

All right. Here is an example of the rules.

Rule Number 1: Choose someone who's honest.

3. A Rock Experience. Students each are to find a fist-sized, or smaller rock. They should then complete the following directions which can be written out for each child or given by the teacher orally to the class.

   a. Hold the rock in your hand.
   b. Look at the rock. See its shape, color(s), ridges and indentations.
   c. Feel the weight of the rock.
   d. Toss it up and down in your hand.
   e. Feel the texture of all the surfaces of the rock.
   f. Squeeze it and find out how hard it is.
   g. Close your eyes and hold the rock against your cheek, chin, and forehead to experience its temperature, its texture.
   h. Put your lips against the rock to experience its temperature, texture, taste, and smell.
   i. Let your rock rest on top of your head to experience its weight.

   A good language arts follow-up to this activity is to have students discuss their experience in groups of five. This allows more talk and affords better listening.

4. Describe It. Provide a bag filled with familiar objects made from rocks and minerals. Include metal objects or mineral-based construction products. Blindfold each student and have him reach into the bag and orally describe one or more of the hidden objects. Then have each student write a single descriptive

paragraph about one of the objects touched. Finally, have each student identify the item described.

5. Minerals and You. Have students follow themselves through a normal day. They should keep a journal on what minerals affect their lives and how they are used.

VI. Conclusion

The intent of this manual was to provide a framework for using the outdoors as a vehicle for providing meaningful language arts experiences. In addition, several examples of various kinds of language arts activities were identified. While many of these examples were connected with specific outdoor topic themes, three things are important to point out in conclusion:

- Many of the language examples from part V could be used with other topic themes besides those with which they were listed.
- Rich outdoor opportunities for incorporating meaningful language arts can also be created around campfire or group sharing time.
- People living and working in the outdoors provide unique opportunities to share oral history or to be interviewed by students—two additional language arts experiences.

Bibliography

A. References

Carson, R. (1965). *The sense of wonder.* New York: Harper and Row.

Distefano, P., Dole, J.A., and Marzano, R.J. (1984). *Elementary language arts.* New York: John Wiley and Sons.

Goodman, K.S. (1986). *What's whole in whole language?* Portsmouth, NH: Heinemann Educational Books.

Sisson, E.A. (1982). *Nature with children of all ages.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Smith, E., Goodman, K.S., and Meredith, R. (1976). *Language and thinking in school.* New York: Holt, Rinehart and Winston.

van der Smissen, B., and Goering, O. (1965). *A leader's guide to nature-oriented activities.* Ames, IA: Iowa State University Press.

B. Other Teachers' Resources

Chapline, E. (1979, September). *An evaluation of environmental education/communication skill program, summer 1979, final report.* Queens, NY: Community School District 27. (ERIC Document Reproduction Service No. ED 186 550)

Cornell, J.B. (1979). *Sharing nature with children.* Nevada City, CA: Ananda Publications.

Green, D., et al. (1980). *The school ground classroom. A curriculum to teach K-6 subjects outdoors.* First Edition. Portland, OR: Environmental Education Association of Oregon. (ERIC Document Reproduction Service No. ED 219 286)

Staley, F.A. (1979). *Outdoor education for the whole child.* Dubuque, IA: Kendall/Hunt Publishing Co.

Staley, F.A. (1986, January). Outdoor Education in the Total Curriculum. *JOPERD,* pp. 56-57.

Staley, R.R., and Staley, F.A. (1986, January). Outdoor Education: Catalyst for Change. *JOPERD,* pp. 62-63.

Van Matre, S., and Weiler, B. (Eds.). (1983). *The earth speaks.* Warrenville, IL: The Institute for Earth Education.

Whitney, H. (1975). *101 environmental education activities.* Booklet 2 - Language arts activities. Thomson, IL: Upper Mississippi River Eco-Center. (ERIC Document Reproduction Service No. ED 165 973)

C. Children's Literature

Baylor, B. (No date). *Before you come this way.* New York: Scribner and Sons.

Baylor, B. (1975). *The desert is theirs.* New York: Scribner and Sons.

Baylor, B. (1981). *Desert voices.* New York: Scribner and Sons.

Baylor, B. (1974). *Everybody needs a rock.* New York: Scribner and Sons.

Baylor, B. (1973). *If you are a hunter of fossils.* New York: Scribner and Sons.

Baylor, B. (1978). *The other way to listen.* New York: Scribner and Sons.

Baylor, B. (1973). *Sometimes I dance mountains.* New York: Scribner and Sons.

Baylor, B. (1978). *The way to start the day.* New York: Scribner and Sons.

Baylor, B. (1972). *When clay sings.* New York: Scribner and Sons.

Frost, R. (1978). *Stopping by woods on a snowy evening.* New York: E.P. Dutton.

Frost, R. (1982). *A Swinger of Birches.* Owings Mills, MD: Stemmer House.

Goble, P. (1984). *Buffalo Women.* Scarsdale, NY: Bradbury Press.

Hightower, J., and Lee, L. (1981). *Moonsong lullaby.* New York: Shepard Books.

Holmes, A. (1983). *The 100 year old cactus.* New York: Four Winds Press.

Klaits, B. (1976). *When you find a rock.* New York: Marmellon Publishing Co.

Littmann, M. (1976). *The people.* Salt Lake City: Hanson Planetarium.

Nieto, R., and Azaola, M. (1974). *I am a rock.* New York: Santillana Publishing Co.

Sharmat, M.W. (1980). *Gila monsters meet you at the airport.* New York: Macmillan.

Simon, S. (1977). *Look to the night sky.* Yakima, WA: Puffin Books.

Steig, W. (1969). *Sylvester and the magic pebble.* New York: Windmill Books.

About the Authors

Rebecca Staley is a fourth grade science teacher at John Jacobs School in the Washington School District, Phoenix, Arizona. She has also taught first, second, and third grades for 15 years.

Rebecca's outdoor education experiences with children have been many and varied. They range from taking third graders to the Hopi Indian Reservation for 4 days to taking first and fourth graders to the Desert Outdoor Education Center at Lake Pleasant for 3 days.

She has been involved in giving presentations and writing articles for numerous district, state, and national science and outdoor education organizations and journals.

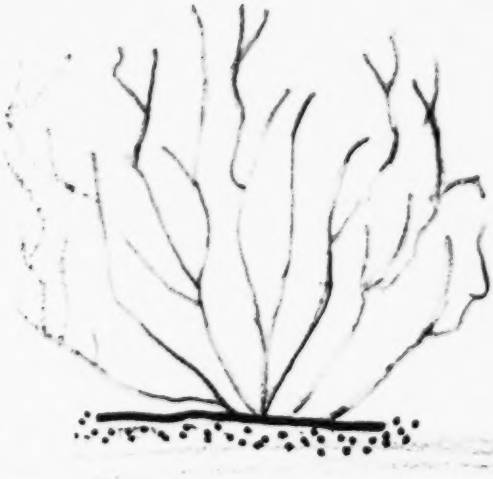
Frederick Staley is an associate professor of elementary education at Arizona State University in Tempe, Arizona. He teaches undergraduate and graduate classes in science and outdoor education.

Since 1970, Frederick has helped several school districts in Arizona establish and implement outdoor education programs, has written a textbook and several articles on outdoor education, has conducted numerous sessions at local, state and national outdoor/environmental education conferences and has served as president of the National Council on Outdoor Education.

Appendices

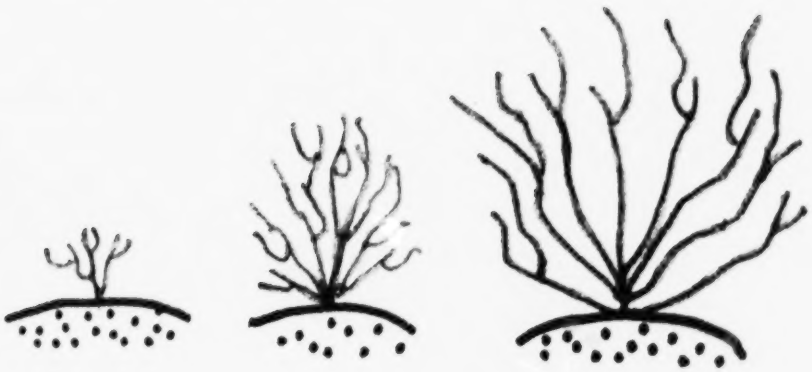
Appendix A

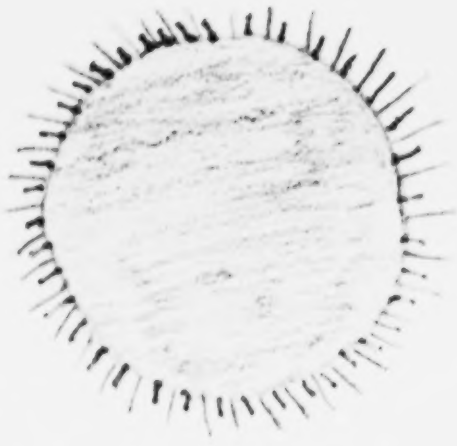
Deserts are Alive



by Jodi Cook

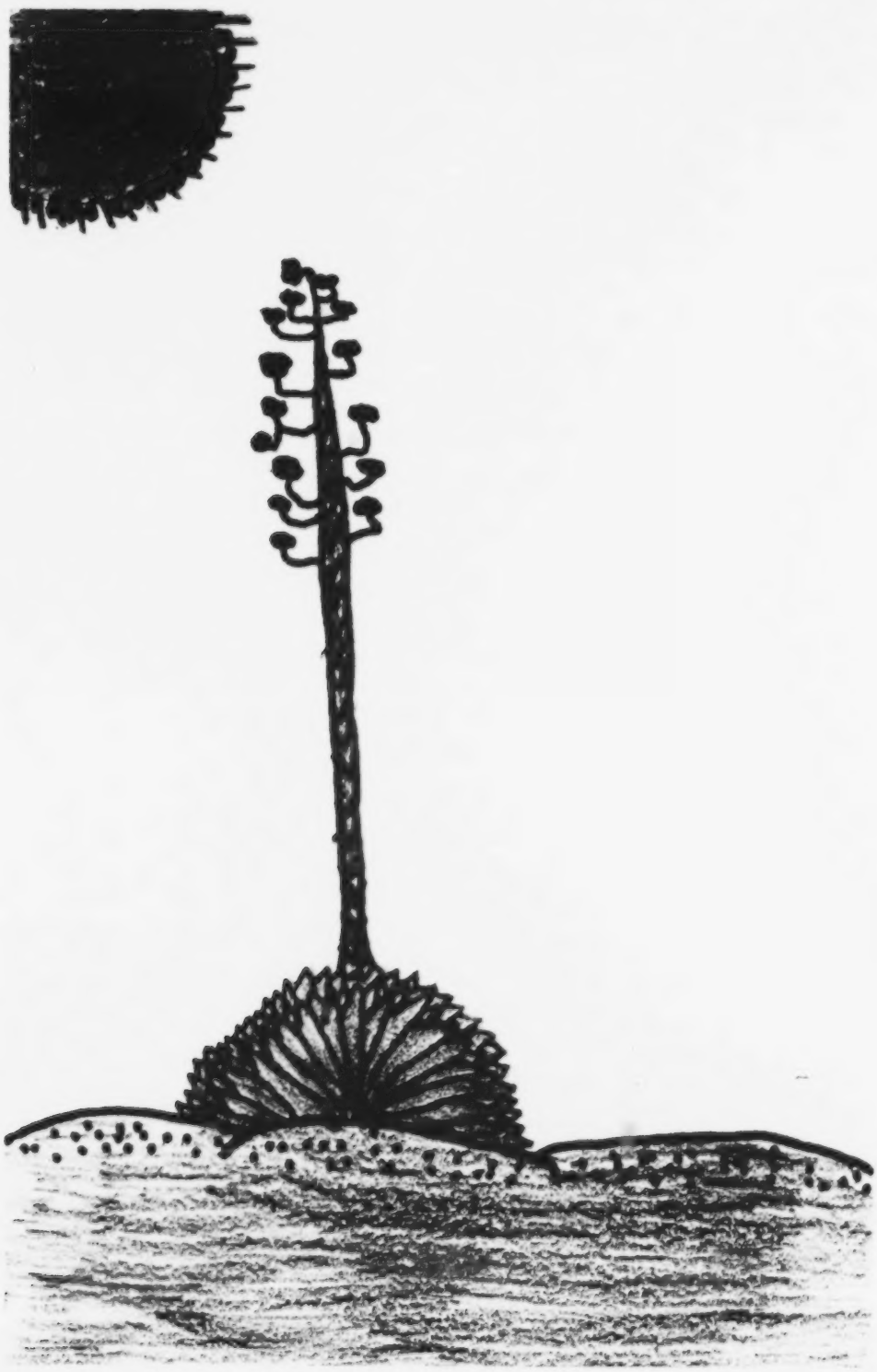
This book is about plants that grow in the hot Sonoran Desert.





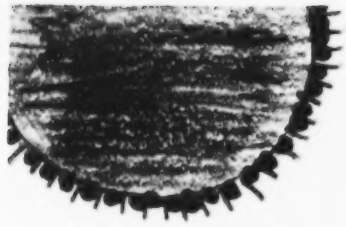
The Agave Plant

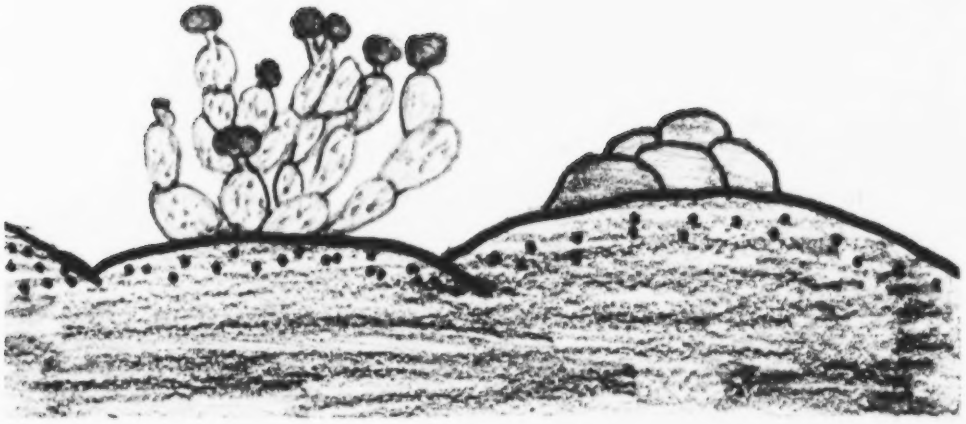
The Agave or Century
Plant grows to be
about 15 feet tall.
It blooms once in a
lifetime. Big, bold, but
spineless leaves are
sword-shaped and
grow in wide rosettes.
It has olive green leaves
trimmed with white
that form colorful
rosettes. It's slow growing
and it will stand in a
pot or ground for
20 years.
The leaves are green
with gray spines
and may grow 9 feet
long and 1 foot wide.



The Nopal or Prickly Pear Cactus

Prickly Pear Cactus live in the Sonoran Desert.
The prickly pear is also called nopal or Indian Fig. It is grown on lava slopes to prevent landslides.
Its pads slightly turn to shade each other.
Most Prickly Pear cactus have yellow flowers on top.





45

Plant adaptation

When a bird makes
a hole in a cactus
plant. juices ooz out.
But not for long.
The juice hardens
over the cut and
stops it from run
ning out. This is one
way cactus plants
save water.
Another way is the
inside of a cactus
is like a sponge.
It soaks up the
water from the roots.
The cactus can hold
water for many months
as the plant uses it.

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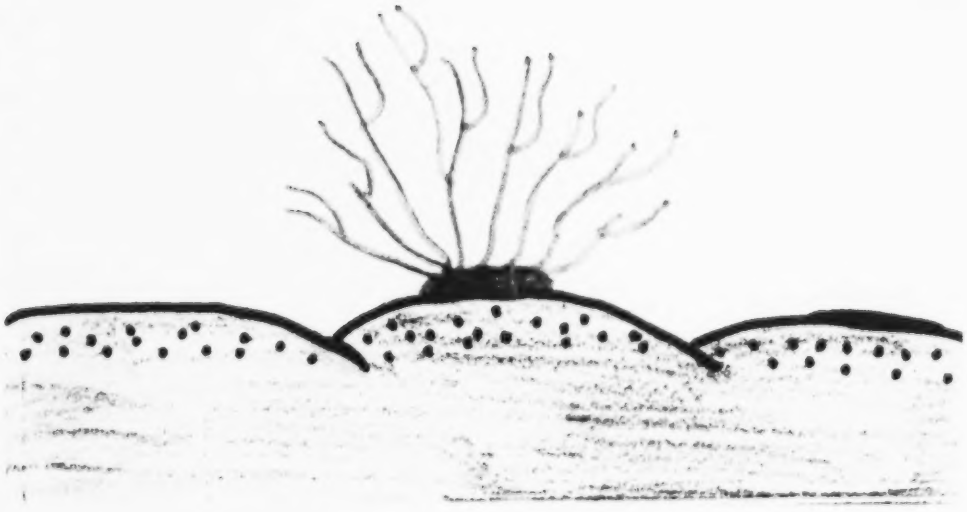
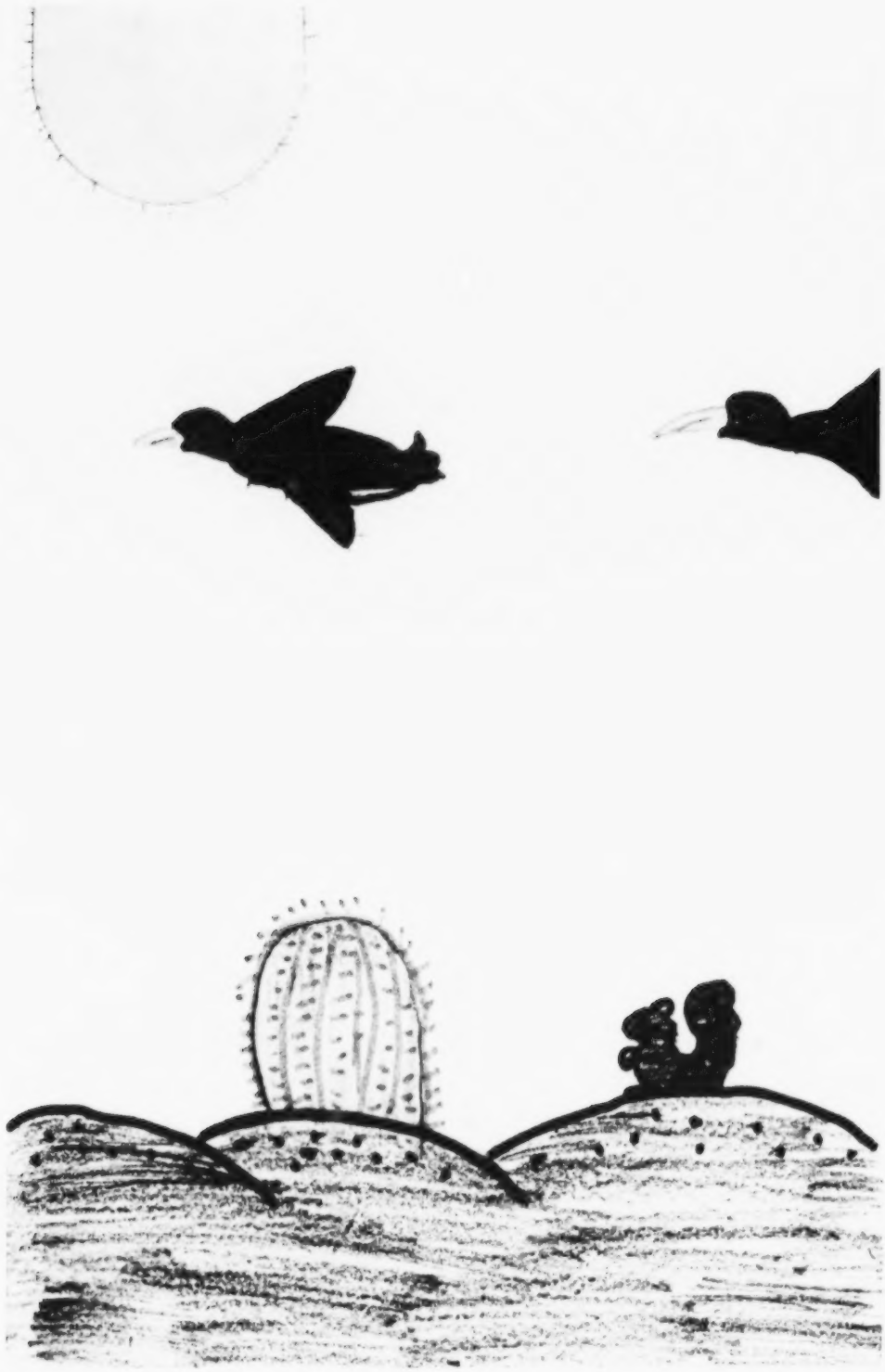
The little spines help
in many ways.
One way is to keep animals
away so it doesn't die.
Another way is to give
shade. cactus can get
all the shade they
need from their
little spines.
Plants have to work
hard to get water.





Appendix B

BY DEANNA LYONS

Itroduction

My book is about plants and their adaptations, or the changes they make to survive in their enviironment which is the Sonoran Desert.

Chapter 1

Plants

One of the first things people see is the spines on cacti. Many of the trees and bushes have spines also. These spines are just one of the ways that desert plants survive. These spines help the plants in many ways. They help keep small animals from eating them. They give shade to the other plants. They catch water when it rains, and helps save plants from hail. Very often an animal will rub against a plant and get a peice of plant stuck in its coat. He may carry it for before it falls off.

The inside of a cactus is like a sponge. It soaks up the water from the roots. It can hold the water for many months.

Chapter 2
The Palo Verde

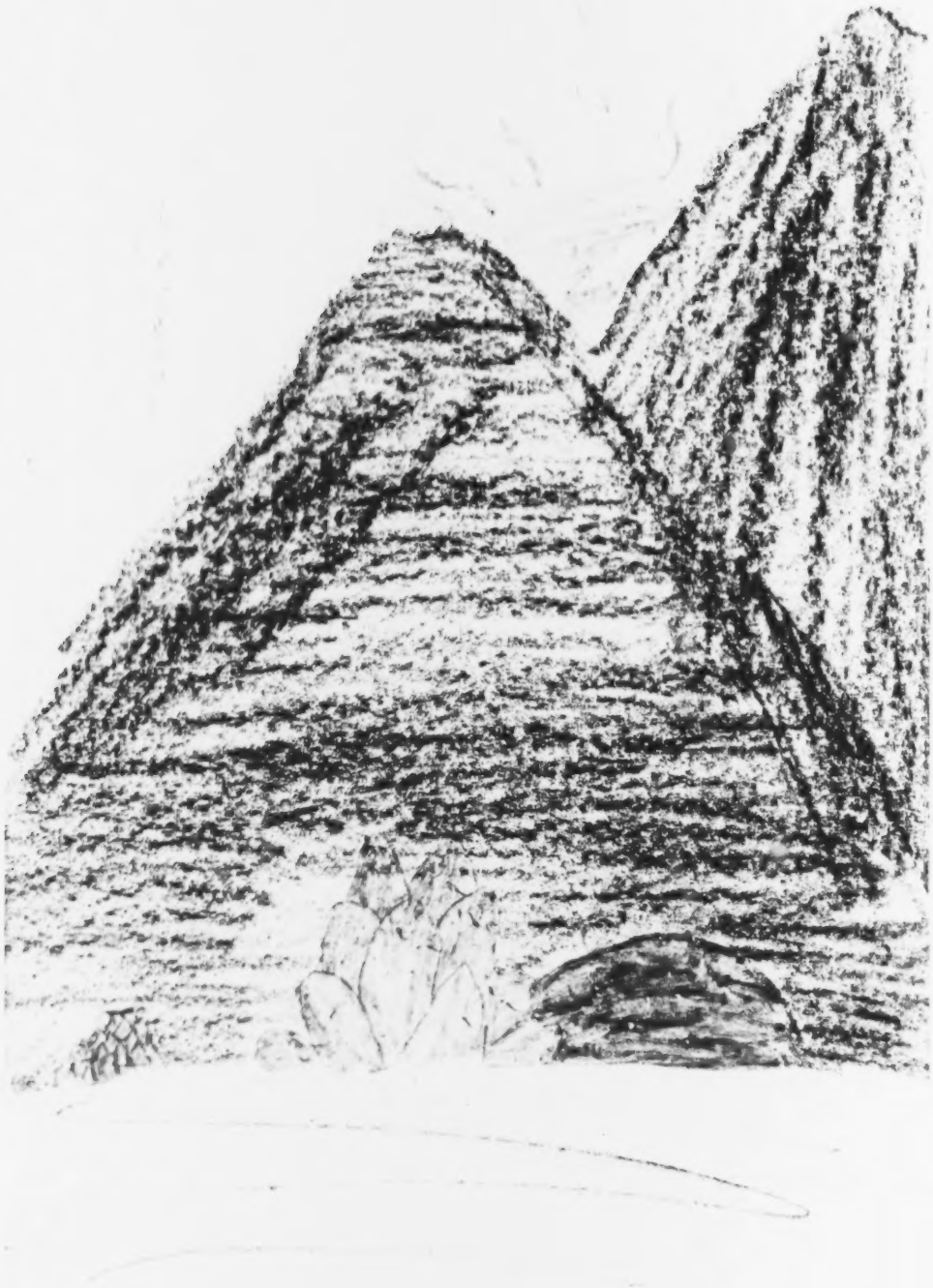
The Palo Verde grows to be 25 feet tall. The Palo Verde is a thorny little tree that grows in the dry regions of the southwestern parts of the United States. The leaves fall as soon as they are grown, and the tree is bare in the late summer. In late April and May the tree is covered with small yellow flowers. The Palo Verde produces seed pods 2 to 3 inches long. Each pod contains 2 or 3 large seeds.

Chapter 3
The Prickly Pear

The Prickly Pear, also called Nopal, or Indian Fig is a type of cactus with prickly fruits which are shaped somewhat like a pear or fig. The chief reason for their wide spread is their food value.

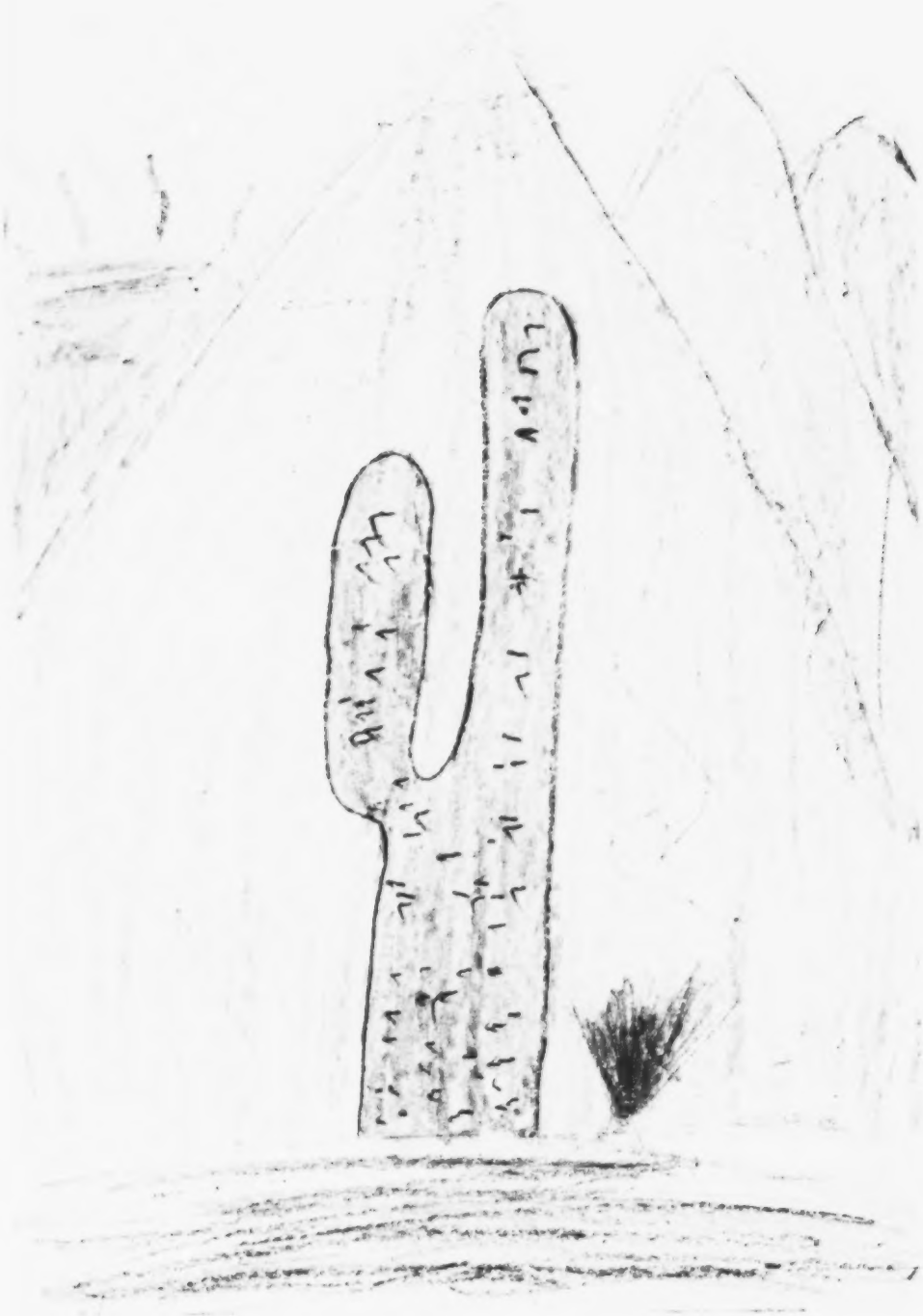
They can stand long periods with little water.

The pads move slightly to shade the younger ones.



Chapter 4
The Saguaro

The Sonoran desert is probably best known for the Saguaro cactus. It does not grow any were else in the world. It can be very tall, and can be seen above the tops of the other plants. Some of the other cacti are shaped like the saguaro, but are much smaller. None of the other cacti have "arms" like the saguaro. It is 75 years old before it grows its first arm. It is also a place for animals to build their homes. Many birds make their nests in the saguaro. The saguaro protects the eggs and young birds from animals that might eat them.



Appendix C

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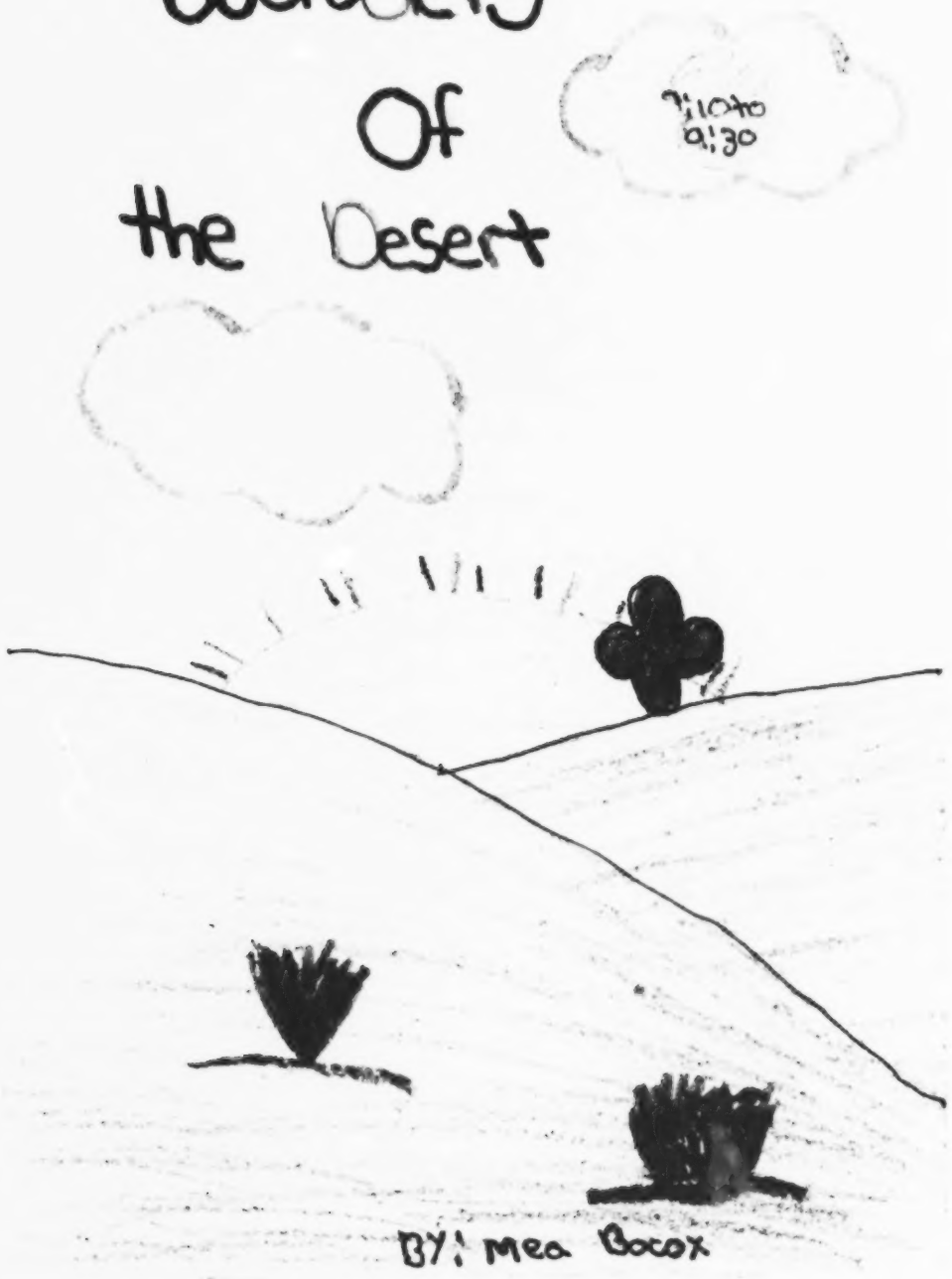
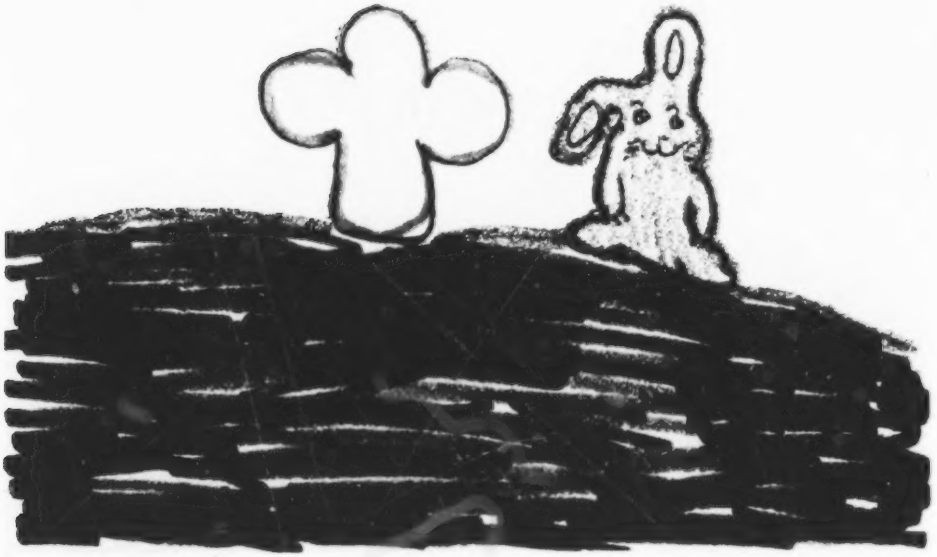
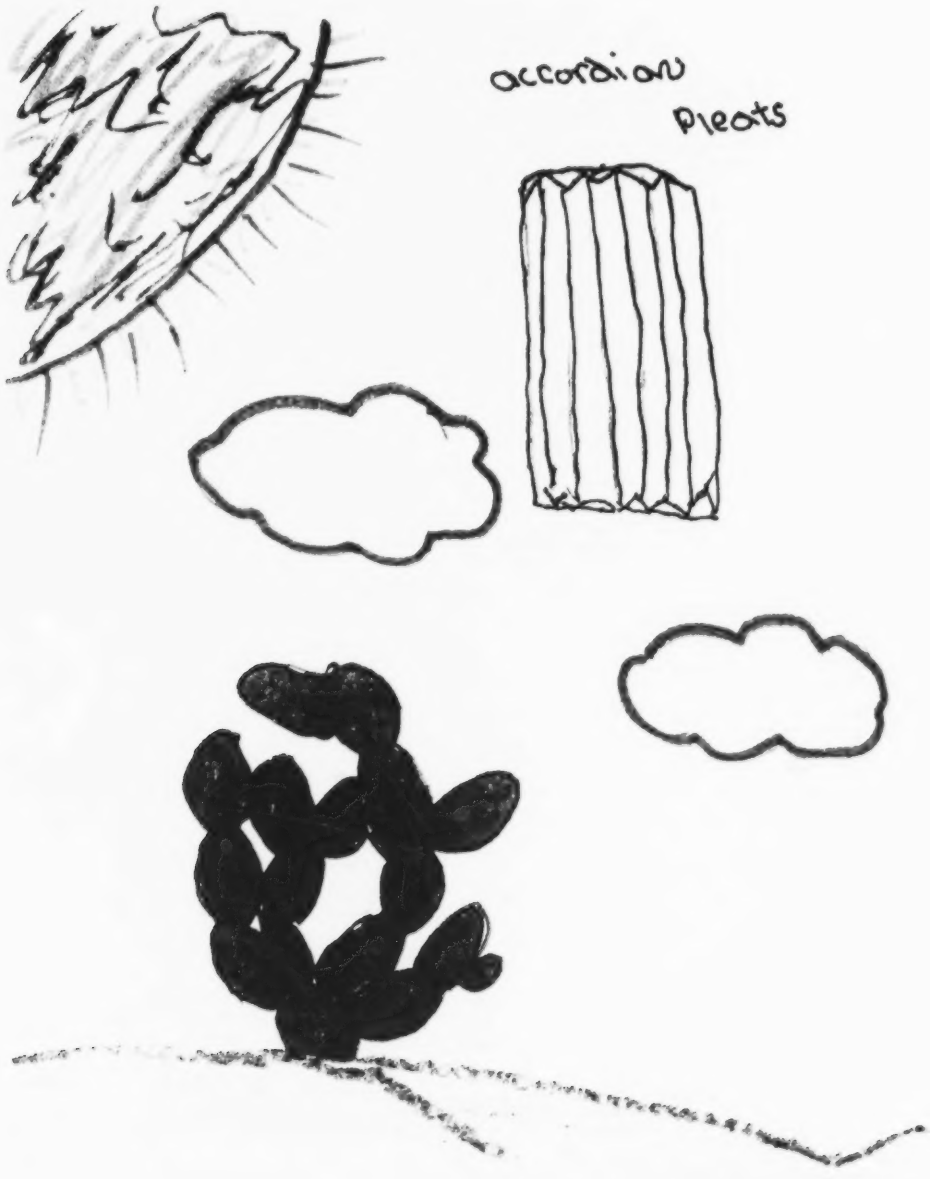
Wonders Of the Desert

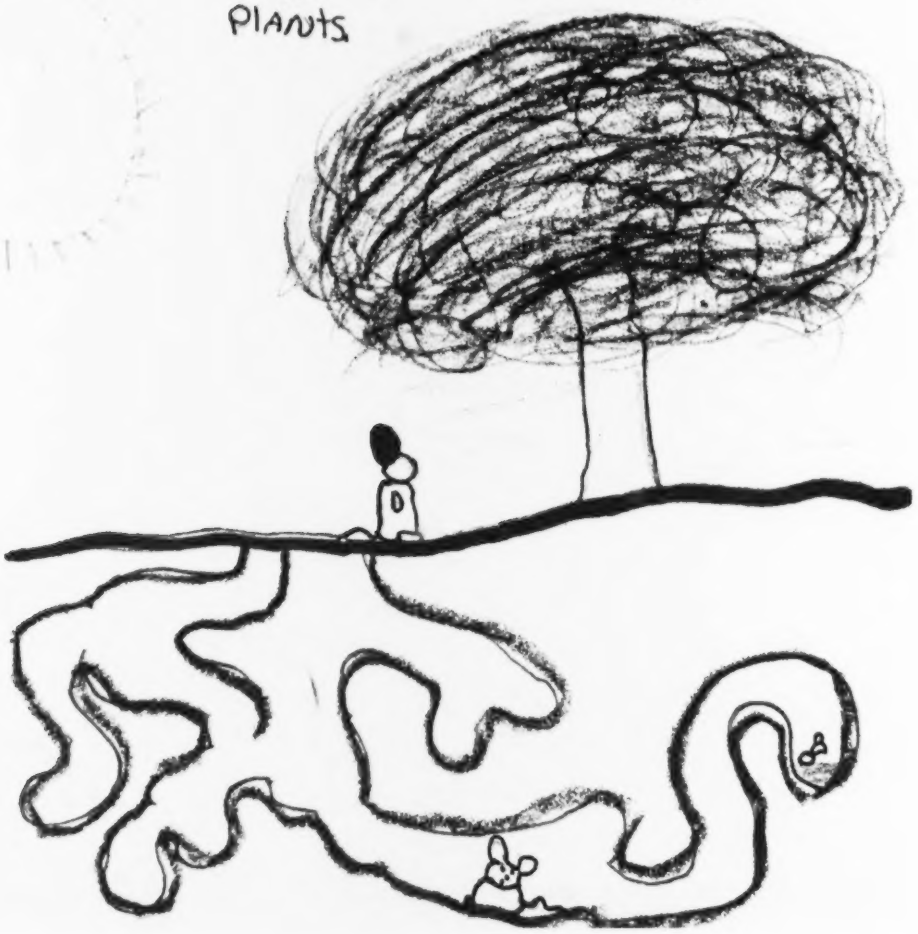


Did you know the prickly-pear pads turn slightly to provide shade for each other? Its stickers keep desert animals from eating it. Thats how the prickly-pear adapts to its surroundings. The saguaro stores water inside of it and can survive for long periods without rainfall. It soaks up the water when it rains and gets much fatter.




accordion
pleats

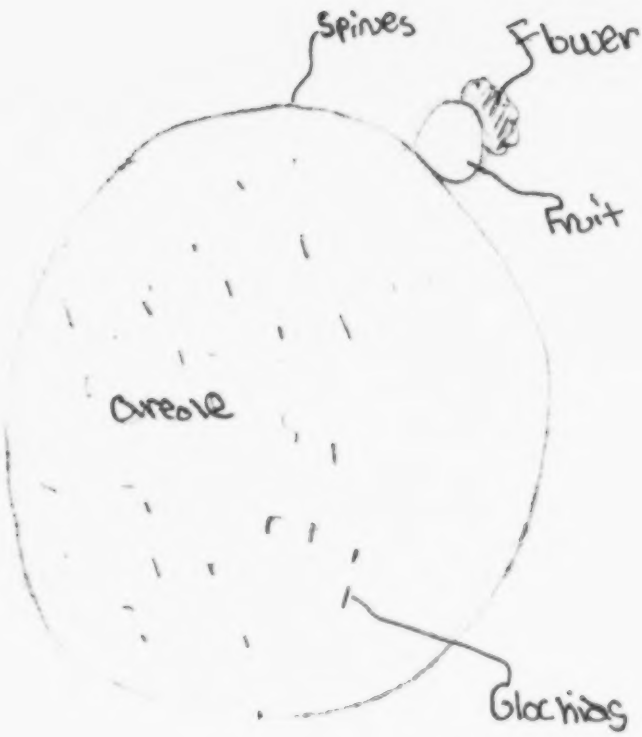
The Palo verde has green branches and stems which does the work of leaves to produce food. In some cases leaves are absent entirerly in plants with Green branches and stems. Sometimes the leaves are very small. It can provide shade for smaller cactus plants



The creosote has waxy leaves,
It grows About 5 to 8 feet.
The creosote has tiny
yellow flowers. The fruit is
round And white and
feels like felt. The
Creosote leaves are
not good to eat.

close
up
of
leaves

WHAT MAKES A CACTUS?
The areole a padlike
structure unique to all cacti.
The spines. The succulent
stems which are usually
large and fleshy are found
in all except the more
primitive cacti. Glochids, are tiny
barbed spines that prickly-
pear and cholias have. They
have small leaves that soon
drop off. They also have
flowers and fruit.


Spines
Flower
Fruit
Areole
Glochids

Seedlings

A cactus seed must
have food and water
in order to sprout.
It may lie in the
dry desert earth for
a year or more waiting
for enough moisture.
When at least 20 millimeters
of rain falls at one time the
seed will sprout.
Then a tiny cactus
will grow out of
the seed.

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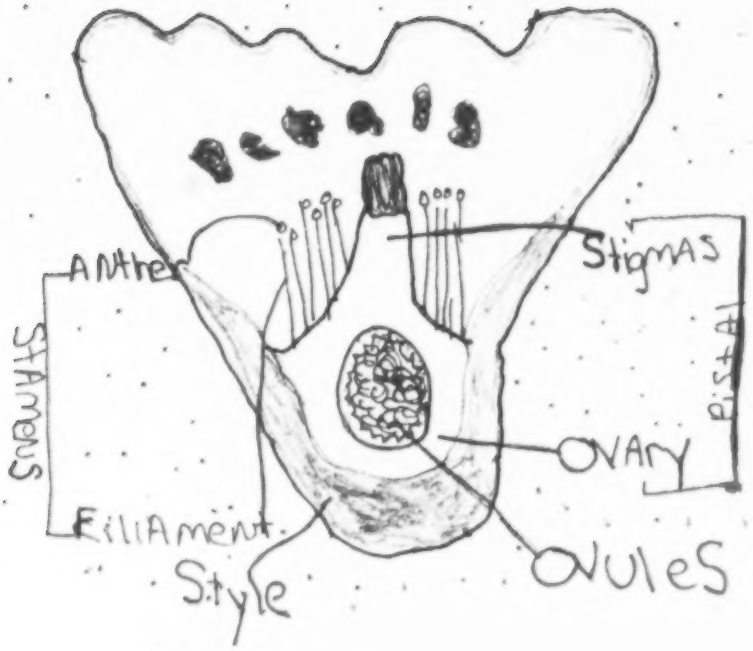
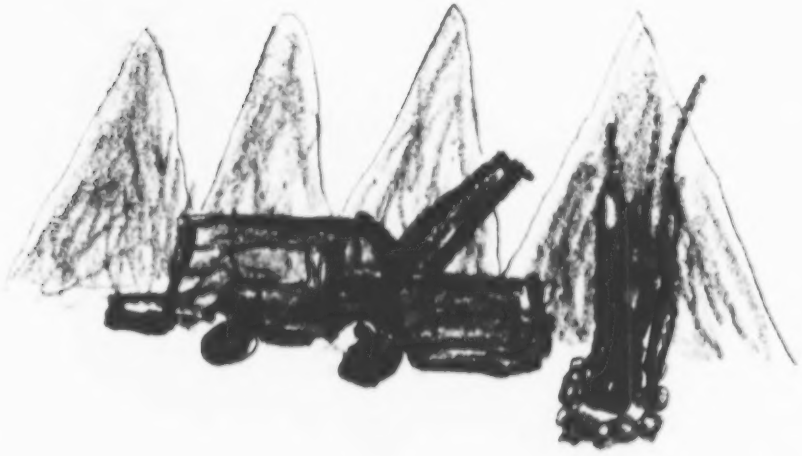


Parts of a Cactus Flower

Appendix D

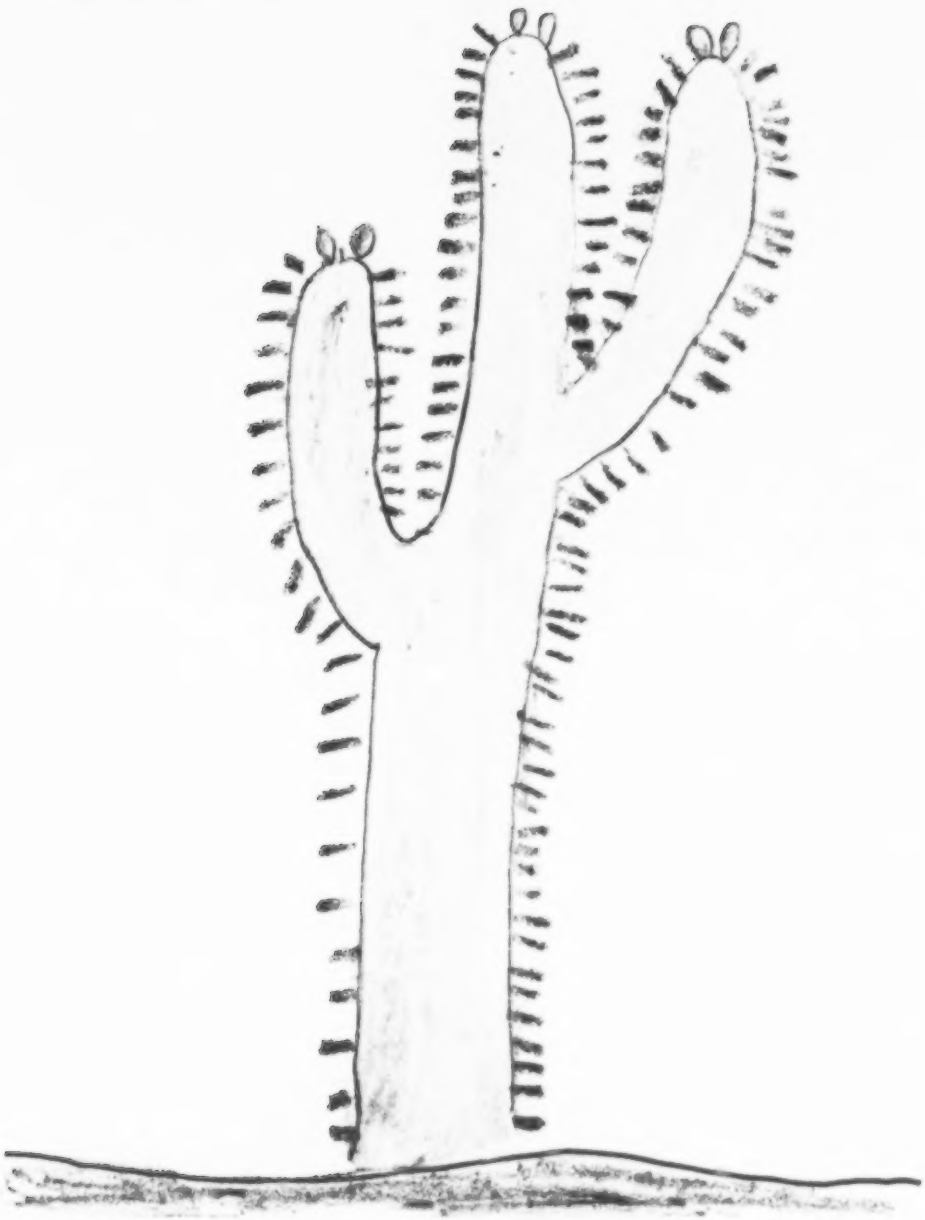
How You Can Survive



By Kirk Turnage

Chapter 1
Food in The Desert

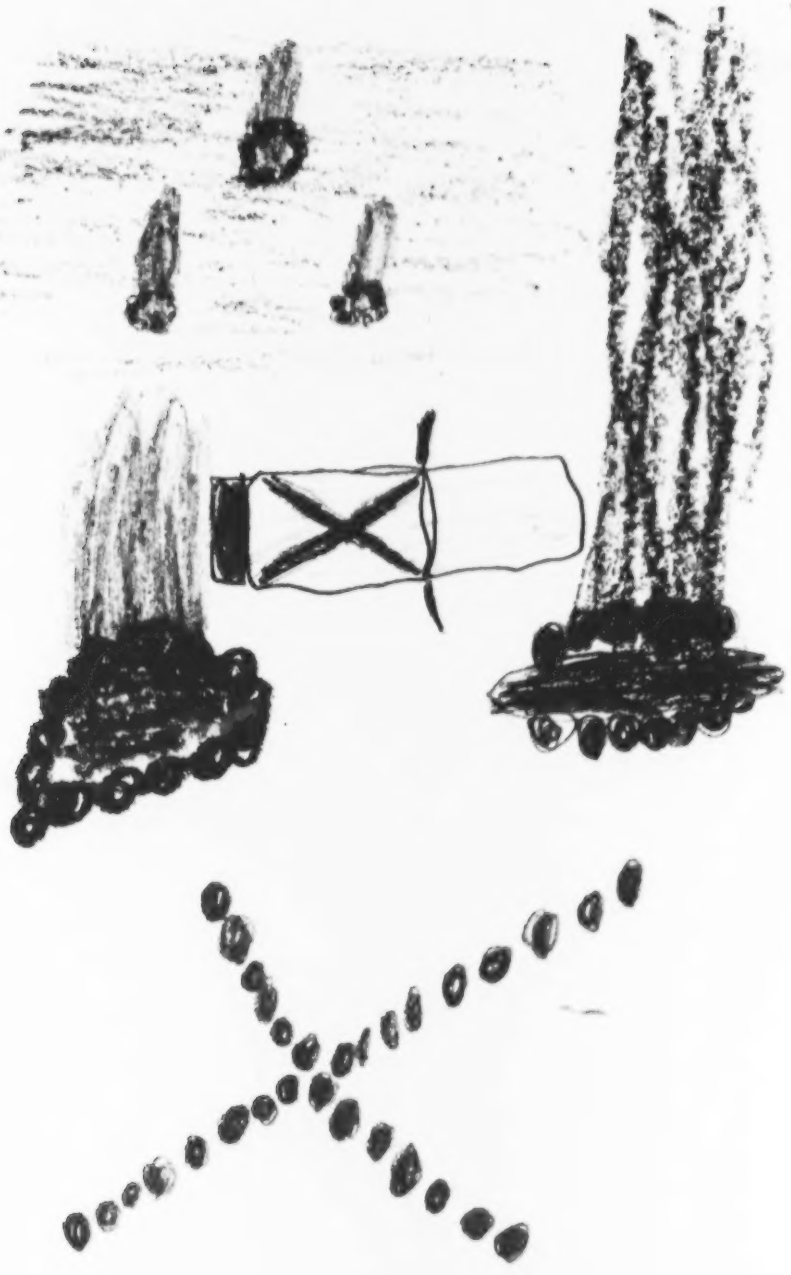
Did you know there's food all over the desert? There is food everywhere if you know where to look. There is food on the saguaro cactus. The food is the flower bud. You can wonder how you get it. First you must find a long stick or a rib of a fallen saguaro. Then knock the buds off and all you have to do is pick them up. There is also food on the prickly pear cactus. The flower buds have to be roasted first to get the thorns off. So if you get stranded remember there <u>are</u> things to eat.



Capter 2

Things You Could Use To Make A Signal

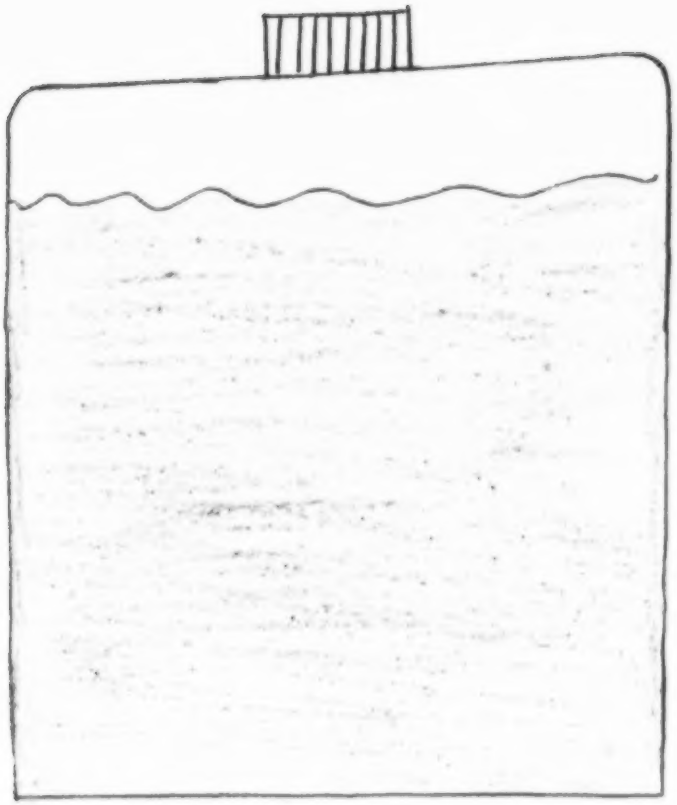
You could find lots of things in the desert to make a signal. You could use things in your car. There are rubber hoses under the hood which makes a black smoke fire. You need smokey fires in the daytime and bright ones at night. Three fires in a triangle means you need help. You could also use newspaper and other things to make a big X. You can also make an X with rope. If you have a mirror you can signal helicopters, planes or people hiking.



Chapter 3

Don't Save Your Water

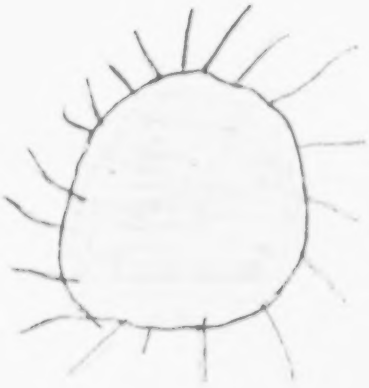
Dont believe people who say save your water. When ever your thirstey drink it. If you wonder off. which you shouldn't do, and if youve saved your water, you might get confused. If water is limited, keep your mouth shut. Don't talk. don't eat, dont smoke, dont drink alcohol and dont take salt, so dont ration your water!

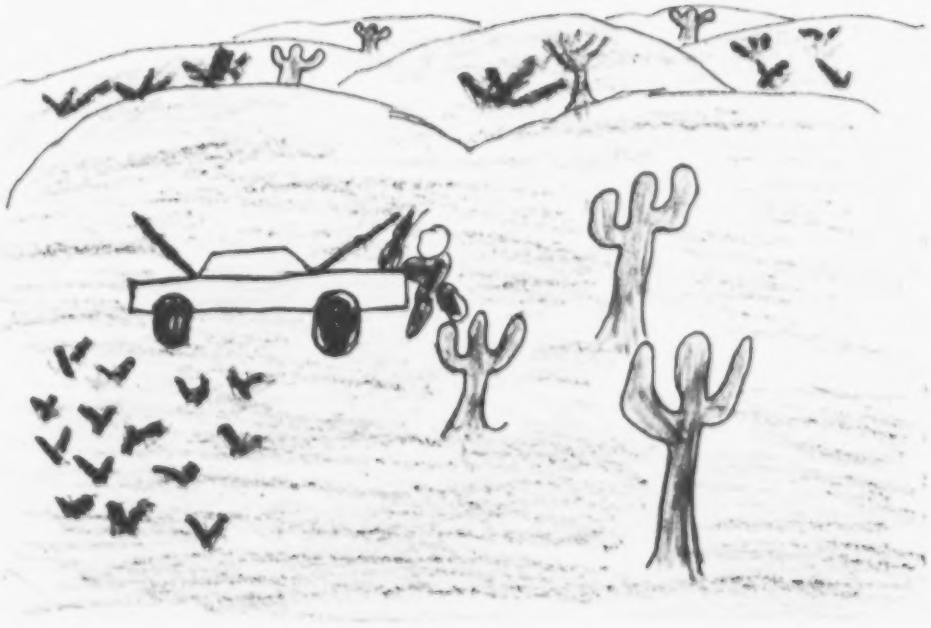


Chapter 4

Don't Try To Find The Road.

Dont ever try to go back and find the road if you get stuck in desert. Stay with your car, Most people who get stuck in the desert die of heartstroke. Always remember your car can save your life. So never go back and try to find the road. Remember, a person on foot is very difficult to find.





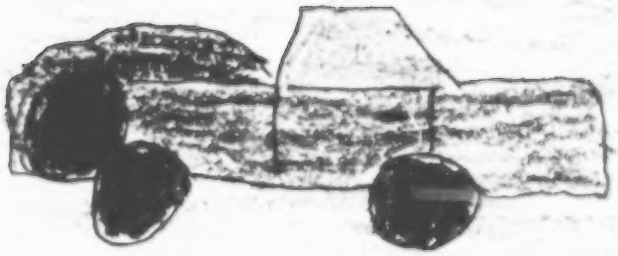
Chapter 5
Don't Go Alone

Another thing to remember!
Dont go alone to the desert.
If you get hurt and no one's
there no one can help you.
And when you need help to make
a signal No one's there to help
you. So always bring a friend
to the desert.

Chapter 6

Always Be Prepared

When you go to the desert always bring water, old newspaper to start a fire, a mirror, a whistle and a first aid kit in case you get hurt. Bring tape and an extra tire. If you have a flat tire you can put a new one on. So when you go to the desert always be prepared.



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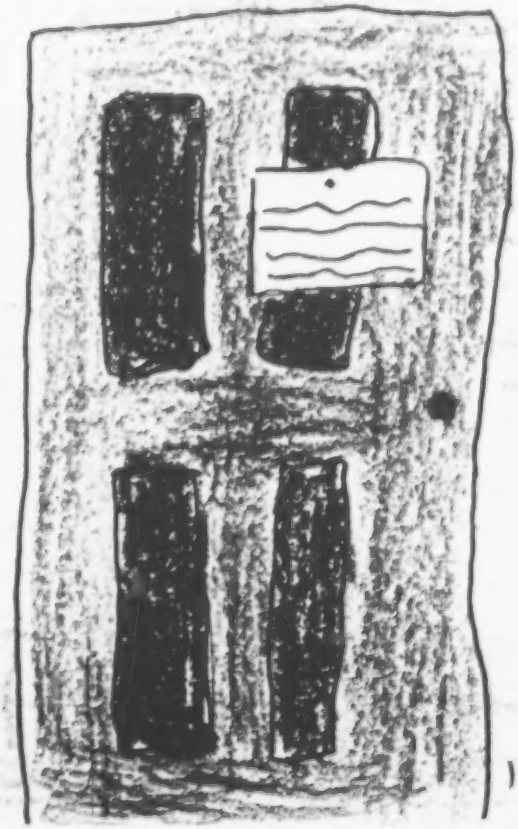
Chapter 7

Always Tell Someone Where You're Going

When you go to the desert always tell someone where you're going and when you'll be back. If you don't tell someone where you're going and do get stuck it's not going to be easy to find you. You could be one of the people that are found dead in the desert. So when you go to the desert always tell someone.



About The Author

Kirk Dunagan was born and raised in Phx. Az. He went to Tumbleweed and Thom Jacobs for schools. His favorite subject is math. He is a baseball player. His favorite position is short stop. He was born 1976 May 23, on a Wednesday.

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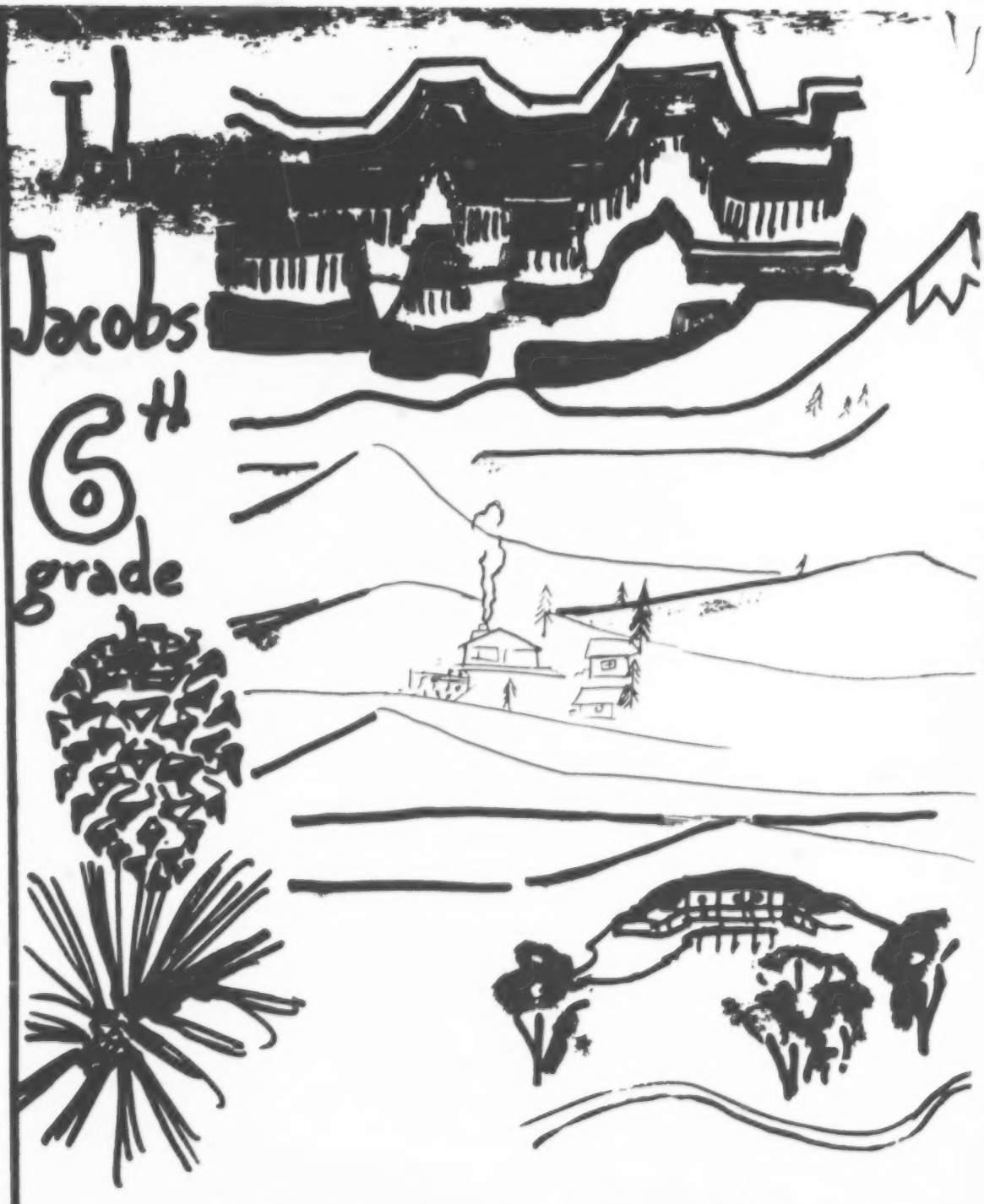
Appendix E



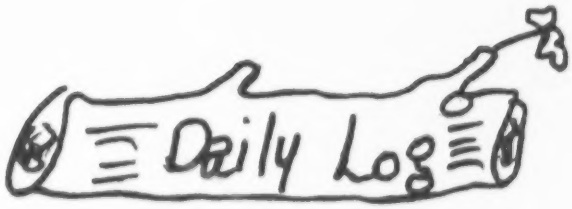
GROUP

NAME

1987 GRAND CANYON 88

Outdoor Education Experience

Harmony/Tetherow



MAKE NOTE OF KEY IDEAS AND THINGS YOU LEARNED TODAY

TUESDAY

MONTEZUMA CASTLE AND WELL--How long did these Indians live here?
Why do archeologists feel they left?
What was the purpose of the Well?
How important was it?

I liked going to the castle and well because I learned alot about each one.

They lived there for 300 years.

WALNUT CANYON--How were these dwellings like those at the Castle?
How were they different?
Imagine yourself living here--what would it be like?

I think Walnut Canyon was the best because we got to hike down in the Canyon.

They were both built on a cliff.

COWBOYS--What was of special interest to you in what you learned about cowboys?

A special interest for me is when they go into the mountains to get cows and calfes.

WEDNESDAY--CLASSES

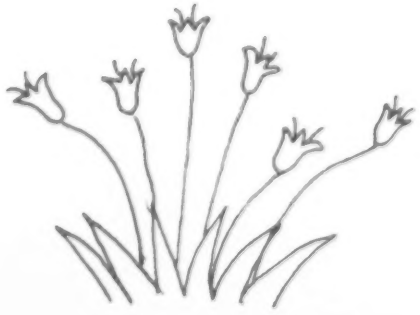
Write at least <u>two</u> things that you learned from each class.

CLASS 1 How to find landmarks and how to find something by landmarks I learned in Mrs. Winter's class.

CLASS 2 In Mr. Vojtko's class I learned how to tell how long a dead tree has been living and how to camaflosh.

CLASS 3 I learned about lifezones and where curtain tree's and and animals are found in the lifezone in Mr. Od's class.

Make a drawing of something really <u>neat</u> that you saw today.



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THURSDAY

GRAND CANYON BY THE SENSES

Using the five senses, write descriptive phrases about the canyon.

SIGHT The Grand Canyon was like fresh paint on it's walls.

HEARING Hearing the birds was like peace all around the world until we heard the cameras.

SMELL The fresh crisp air smelled as though it as just rained even though it hadn't.

TASTE The taste of the air was fresh and clean.

TOUCH I could feel the beauty that the canyon was giving off.

Develop a word picture that shows what you felt about the Grand Canyon. (Poem, descriptive paragraph, etc.)

Seeing the Grand Canyon makes me feel good inside, because its beautiful and full of life.

The canyon is a peaceful place and we should never try to harm it.

CAMP THIS YEAR WAS.... ~~fun~~ ~~the best tim~~ ~~Super~~ ~~just grand~~ ~~awfully great~~ AWESOME

The most unusual thing I saw was.....
Montazuma's Well.

The thing that made me miss my momma the most was.....
right now.

Dad should have seen when we.. won our 2nd volleyball game.

Never again do I want to.....

I wish I could.... stay here in the summer.

If I could do it again I would.... hike Walnut Canyon.

I didn't need money to.... get a postcard.

The neatest thing about the canyon was..... the river.

The worst thing that could have happened, but didn't was.....
falling off the Grand Canyon.

The softest thing at camp was.... my pillow.

I didn't know that..... Mr. Vojtko was so much fun.

The tastiest thing I ate was.... pizza.

I felt best when.... we won a volleyball game.

BUT, THE THING I WILL REMEMBER THE MOST IS.....
the scary stories and IMAX theater.

"END OF DOCUMENT"